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Original Communications

The Presidential Address at the Eleventh Congress of the Association of the Gynæcologists and Obstetricians of France, held in Paris, September 19th, 1921.

By Professor J. L. Faure.—Professor of Clinical Gynæcology at the Faculty of Paris.

If we are to render a service to the medical generations that follow us, we must bring to the science of medicine Latin clearness of mind, and free it from German obscurity. I do not, in any way, belittle the work which has been done the last half century on the other side of the Rhine. A legion of diligent workers have been at the laboratory tables for years, but what great result has there been? Many confused lights have appeared in Germany, but all the brilliant lights that have illuminated the sky come from the west. In obstetrics the Germans have produced only biological researches, which are doubtless interesting, but are insignificant as compared with the work of Tarnier, and much more insignificant perhaps as compared with the wonderful movement which is carrying accoucheurs of to-day towards the saving of mothers and children. This is a task which is the pure and noble creation of the French mind and still more of the French heart, and which will save more mothers and children than the combined results of the finest operative conceptions of obstetrics and gynæcology.

In gynæcologcial surgery I have elsewhere shown what has been our share and what has been that of the Germans. It began in America, in England and in France, and in these countries it has reached the marvellous perfection which it possesses to-day. Here, in France lived the great master who really revealed to the world major abdominal surgery. I refer to Pean. The Germans, who had nothing to do with the discovery of anæsthesia, nothing with that of antisepsis or of asepsis, have had even a smaller share in this marvellous revolution. In fact, Trendelenburg, a name almost unknown in his own country, is the only German who has done anything great in this department.

Here are some of the great problems for us to solve. Therapeutics by X-rays and by radium, radiotherapy and curietherapy, are, at this moment, making the fiercest assault upon major operative gynæcology that has ever been made. Up to the present these splendid operations in which the resources of modern surgery are displayed in all their majesty have been marching from victory to victory. Those who, like ourselves, have been watching the development of hysterectomy for thirty years, and who now see in it a power and a perfection which will doubtless never be surpassed, were indeed justified in thinking that they were witnessing its definite triumph. And all at once, within a few years, these great surgeons, these eminent operators, are asking themselves if they must not lay down their bistouries and renounce the fight against uterine cancer by means of these major operations which have been crowned with so much success. They have even been asking themselves if they are not going to give up operating on all these uterine fibromata whose extirpation constitutes the operation which is, in my eyes, the most perfect and the most remarkable in surgery—in favor of the X-rays whose efficacy none can contest, or in favor of radium, which is, perhaps, still more efficacious. Radium threatens to overthrow in medical science, and especially in gnyæcology, the facts which seemed to us, a few years ago, most solidly established. A cursory survey of the programme of our congress shows at once the place which this new treatment occupies in our own estimation.

Are we then, we surgeons who have seen the almost miraculous development of surgery, are we going to witness now not its decadence but its retrogression? This is possible, and seems even certain. I do not know what our successors will see or do. They will certainly see nothing greater than we

have seen. Doubtless they will see medical methods taking back from surgery little by little what the latter had taken from medicine. And we who have shared in this magnificent development and who, doubtless, have seen its highest success, should feel that it is threatened with a loss of some of that grandeur to which we have led it. We must watch it descending that slope which drags it towards an unknown future. Its evolution, whatever it may be, will be accomplished for the good of humanity.

The consolation for us gynæcologists is the certainty that the future will become brighter and brighter for our friends, the obstetricians. Nothing will change that which constitutes the firm basis of their science, and whatever may be the power of the creative evolution no one will see the day when women will bring their children into the world otherwise than through pain and blood. One day they will see the disappearance of all the accidents which are now almost the only cause of their anxiety,—those accidents of infection which constitute the problem of responsibility. But the weakness of human nature will remain as it is and there will always be enough to be done to satisfy their need of action and the greatness of their role, even if only in the infinite variety of intervention to which obstetric dystocia gives rise.

Thus the future will doubtless see the operative domain of obstetrics widening while that of gynæcology will contract more and more.

Translated by H. S. from the *Gazette des Hôpitaux.*

The Value of Quarantine in Communicable Disease.

By J. J. Middleton, M.B., D.P.H.,
Provincial Board of Health, Ontario.

In almost every effort put forth by Public Health Officials and the medical profession generally, towards the better prevention or control of communicable disease epidemics, there is some obstruction in the way of a complete carrying out of the preventive measures that are considered necessary. This may be the result of opposition by individuals through lack of knowledge of the value of sanitary measures, or through wrong impressions of the purposes of sanitation; or it may be due to a laxity in the carrying out of the regulations themselves. Whatever the reason for, or the nature of the opposition, it must be removed or overcome else the disease will gain headway.

In drawing attention to some points on the value of quarantine in the control of communicable diseases, it might be well, at the outset, to try to define the meaning of the word and exactly what it implies.

Quarantine is Italian in origin, derived from the word "quarante," meaning forty, and was applied as early as the fifteenth century to the practice of detaining ships for 40 days if there were actual or suspected cases of infectious diseases on board.

Quarantine means isolation for a certain definite period, of the sick, or the infected, or the possibly infected, e.g., contacts. In the case of a person ill with a communicable disease the duration of quarantine lasts until the infectivity of the disease has passed, as for example, the taking of two negative swabs after an attack of diphtheria. As a preventive measure quarantine coincides approximately with the incubation period of the disease in question and in the case of contacts the quarantine is raised, if, after the expiration of the incubation period, no further outbreaks of the disease have developed. The purpose of quarantine as regards individuals, is to prevent the transmission of the disease from the sick or infected to the healthy. This protection is essential in the light of present day medical science, which has demonstrated beyond a doubt that the chief path of communicable disease transmission among human beings is from person to person.

Quarantine regulations are, or can be, established in several ways. Perhaps the oldest known form of quarantine applies to the detention of ships carrying communicable diseases, or coming from ports where communicable or epidemic diseases exist. Quarantine also applies to the detention of persons in infected localities, and to the detention of occupants of a house in which there is a case of infectious disease. The first is commonly spoken of as maritime quarantine, the detention of persons in infected localities as inland quarantine, and the last as house quarantine.

Maritime quarantine in England, United States and Canada is especially directed against the entry of those terrible scourges of the tropics, viz., cholera, plague and yellow fever, but other threatened invasions of epidemic and pandemic diseases have from time to time been kept out by rigorous quarantine regulations.

In the case of yellow fever, Surgeon-General Cumming of the United States Public Health Service, in an address at the American Public Health Association's Convention in New York last week, cited the effectiveness of quarantine in preventing the disease from gaining an entrance to the United States, although its harbours were approached from time to time by infected and suspected ships from Mexico and other sub-tropical and tropical countries.

A striking example of the value of maritime quarantine in retarding the progress of an epidemic was afforded in Australia during the war when preventive measures were successfully undertaken in the Australian ports to keep out the influenza which was exacting a heavy toll of life in all European countries and on the American continent. As a result, in spite of the thousands of troops returning, there was no outbreak of "flu" in Australia until months later when the disease had become practically pandemic.

The value of quarantine in cholera prevention is shown in the case of the steamship "Adana" which left Jeddah in August, 1891, ith pilgrims from Mecca, and arrived at El Tor a few days later, having had eighteen deaths. The pilgrims were strictly quarantined at El Tor, and, as a result, no cholera developed in Egypt. *

However elaborate or complicated the process of quarantine may be, the end in view is to prevent the transmission of disease from the sick or infected to the healthy. Dr. Chapin

* Davies—"A handbook of Hygiene."

says that, as far as experimental evidence is concerned, there is no ground for belief that the common infectious diseases have a source outside of animal bodies. Belief was held at one time by certain observers, that the specific poison of many infectious diseases and particularly of typhoid fever and cholera, developed in a contaminated soil, or in other forms of filth. The filth theory was held at a time when there was no knowledge of the micro-organisms which cause disease, and when theories as to the origin of disease depended on clinical or epidemiological evidence.

In the case of anthrax, it is generally agreed that the soil may become infected with anthrax and remain so for a long time. Delépine, however, after studying recent outbreaks of anthrax in Great Britain, is of opinion that the importance of the soil in transmitting the disease has been exaggerated and is convinced that the disease is perpetuated through the air or by a more or less direct contact, chiefly with unrecognized or concealed cases. In wool sorters' disease, the spores are believed to come directly from the infected hides or wool.

Recent studies and investigations as to the origin and paths of infection make it clear that carriers and missed cases, as well as the sick, are largely responsible for the spread of communicable diseases. In some instances it appears that carriers may be non-infectious, certain persons harbouring the bacilli of typhoid and diphtheria in their systems having remained for long periods without apparently infecting members of their family or others brought in close contact with them, but as a general rule the chain of evidence against typhoid carriers is complete, this disease more than any other being spread through water, milk or food. Outbreaks of typhoid, as a result, are often found to have their origin in some definite locality, and can thus be traced to a single house and even to an individual.

An interesting example of the transmissibility of disease by personal contact is related by Dr. R. W. Bell, of the Provincial Board of Health. A young man returning from the West had a long drive to the station in a buggy, and he noticed that the driver who occupied the seat beside him had spots on his face. Ten days later this young man went to a dance and four days after this was taken ill with smallpox. Exactly two weeks after the dance, no less than nine people with whom he had come in contact that evening, developed smallpox, the inference being that direct contact may transmit

the disease during the incubation period. With regard to measles, it is now generally believed that there is little likelihood of transmitting the disease before the ninth day of the incubation period, and hence, contacts need only be isolated from the ninth to the fifteenth day.

In the case of tuberculosis, experiments have been made showing that the disease is transmitted by droplet infection, live tubercule bacilli having been found on a glass plate in the ventilating shaft of the Brompton Hospital for Consumptives, London. Except for direct contact it is chiefly through sputum from open cases that tuberculosis is spread. Smallpox is probably the only disease that is carried to any distance by the air outside of dwellings, and in the case of plague, no evidence can be brought forward to show that air has any effect in its spread, the rat and the flea being the direct steps of transfer of the disease to human beings.

Many instances are, of course, on record, where quarantine regulations seem to have failed. However, wrong or delayed diagnosis, the presence of carriers, of mild or missed cases and a laxity in the enforcement of quarantine laws are oftener the real causes of failure.

Apropos of the effectiveness of isolation in epidemics, I have in mind a controversy that arose in Belfast in the Fall of 1919 during a severe outbreak of scarlet fever. The Medical Officer of Health had been urging the necessity of an early and complete diagnosis, and at the same time distributed pamphlets, notices, etc., pointing out the fact that it was the mild and missed cases that were chiefly responsible for the spread of the disease. A newspaper discussion broke out as the result of this publicity, the opponents of the Health Department's activities asking why the citizens were saddled with the enormous expense of keeping up an isolation hospital when it was not effective in controlling the outbreak. In view of the very doubtful diagnoses of many cases and the prevalence of missed cases, and the difficulty in tracing the origin of the outbreak, the consensus of opinion in Belfast seemed to be, that in a large city of this kind, the isolation hospital, while not of much value in lessening the prevalence of an epidemic, yet is effective in providing better care and treatment for scarlet fever cases with a resulting decrease of mortality.

There is a difference, however, in the case of a village or small community. In applying isolation to the prevention of disease, Dr. Chapin says it must be kept in mind that different conditions require different procedures. Thus, when

an ordinary contagious disease first appears, after a considerable absence, in the small community, or in an institution, very rigorous measures of isolation are usually desirable, as experience has shown that very often an outbreak can be quickly traced to its origin and is thus effectively checked in its beginning. The value of isolation under such circumstances is well illustrated by the history of outbreaks of the common contagious diseases in the smaller cities, townships and villages of Michigan.

Following is a partial summary of some of the tables in the report:—

Number of cases per outbreak.

	Restricted measures not enforced	Restricted measures enforced
Typhoid Fever	6.72	2.22
Diphtheria	4.85	1.71
Scarlet Fever	10.43	2.53
Measles	27.60	4.67
Smallpox	32.00	3.80

It appears from the figures supplied that isolation and disinfection if practiced in the smaller communities can reduce the cases of contagious disease in round numbers from forty-five to ninety per cent. In scarlet fever, diphtheria, measles and smallpox, isolation appears from the reports, as one would expect, to have very much more restrictive effect than disinfection. *

In the United States, quarantine methods are being tried out in dealing with Syphilis and Gonorrhœa, but the secrecy maintained regarding these diseases, the desire of patients to keep their condition from being known, and the quack remedies offered the public from many sources, make the value of quarantine doubtful. So far it has not been tried out in Canada in connection with Venereal Diseases.

One argument used against quarantine is, that though correct in theory, it is useless in practice, and that while failing to stop the introduction of the disease, it leads to great individual hardship, and commercial dislocation. This again is not so much an argument against quarantine, as it is an admission of the lax enforcement of quarantine due to human thoughtlessness, carelessness, or indifference, thus allowing a leakage somewhere for the infection to spread.

* Chapin—"Sources and Modes of Infection."

Whatever its limitations, quarantine is especially important as an educator of the public in the laws of health. It acts as a warning that hygienic principles must be enforced if the public health is to be safeguarded.

To be effective, quarantine regulations must be rigorously and efficiently enforced, but to this end, early and correct diagnosis of the disease is essential. If this can be brought about and means found to isolate carriers and mild cases that at present are often missed, quarantine would become effective in practice as well as in principle. Besides, there must be uniformity in the interpretation and carrying-out of the quarantine regulations, and not the slip-shod method in vogue at present in many parts of this province, where even adjoining townships and their respective Medical Officers of Health have different opinions and rules for the control of outbreaks of measles, whooping-cough, scarlatina and other communicable diseases.

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Professor Faure's Address and "Curietherapy"

We are pleased to publish in this issue the address—in part—of Professor Fauré, President of the Congress of Gynæcologists and Obstetricians of France, held in Paris, in September, 1921. The views expressed therein may appear, to many, very radical, but, as they come from the pen of a leading surgeon, they should make us pause and consider. Certainly this is a most unprejudiced view in favor of non-surgical treatment of many gynæcological conditions. In our opinion this note of warning regarding gynæcological surgery cannot be too strongly emphasized, and it is to be hoped that the pendulum, which has swung so far toward surgical intervention, will return to a mid position in which, if possible, due consideration will be given to the value of both medicine and surgery.

In this issue also there appears a letter from Paul Degrais, of Paris, a noted Radiumtherapeutist urging the adoption of the term "curietherapy" (after Mme. Curie, the discoverer of radium) instead of "radiumtherapy." While we fully appreciate and sympathize with his attitude and that of his countrymen, we feel that "radiumtherapy" has been used so widely in Canada and the United States that it would be difficult, if not impossible, to make such an alteration.

Doctors in the Election

Physicians have taken a somewhat prominent part in politics in Canada, especially since Confederation in 1867. It will be remembered in that event that Doctor, afterwards Sir, Charles Tupper, was one of the most prominent "Fathers of Confederation".

In the recent election many physicians of high class were elected, while other good men unfortunately fell by the way. Among those elected was one from Quebec, one of her most gifted sons, whom all men in his own and other provinces delight to honour—Henri S. Beland, of St. Joseph, P. Q. He has been described as a gifted French-Canadian speaker—"a man of clean record, well-educated, *mens sana in corpore sano.*"

Another is one of the most prominent figures among doctors in the Maritime Provinces, Dr. Murray MacLaren. Of Scottish extraction, he was born in New Brunswick, graduated B.A. in his own province, received his medical education in Scotland, graduating M.B. from Edinburgh, after which he commenced practice in St. John's, N.B. He has been highly honored both by the public and by the profession, a prominent officer in the Army Medical Corps, a past president of the following societies, St. Andrew's of St. John's, the Maritime Medical Association and the Canadian Medical Association.

Another highly respected and well-known physician was elected in Kingston—Dr. (Gen.) A. E. Ross. In his younger days he was a sport (*and probably is still*) excelling especially in our popular game of foot-ball. Soon after graduating B.A. and M.D. from Queen's University, he commenced practising in Kingston. Early in his career he took a prominent part in both public and professional matters. He was alderman for a time, mayor in 1908, and, shortly after, was elected to the provincial legislature. He was, also, president of St. Andrew's Society, Kingston, for a year. He took an active part in the South African and German Wars, in both of which he did admirable work in military medicine.

Another outstanding figure is Dr. Chas. Sheard, elected in South Toronto. He was formerly a professor in Trinity College and M.O.H. for Toronto for several years. He is past president of the Canadian Medical Association and of many other local societies, being generally recognized as a man

of ability, an excellent speaker and a useful man in the legislature; especially because of his knowledge in all matters pertaining to public health.

Another of the most prominent Canadian physicians is Dr. R. J. Manion, who was a member of the Cabinet formed by Mr. Meighen and who will sit in Parliament as the member of Fort William. His marked ability is well recognized by the profession in Canada.

Another physician, probably recognized chiefly through his prominence in political matters, is Dr. Jas. P. Rankin, of Stratford. After graduating M. D. from Trinity University in 1878, he did post-graduate work in Great Britain and became L.R.C.P. & S. (Edin.) in 1880. He then commenced practice in Stratford, and took a prominent part in public matters, being first elected member of the Dominion Parliament in 1908. In the election of 1917 he was defeated, but was again nominated by the Liberals in the recent elections, and was elected by a fair majority. He is described "as a thinker and a capable speaker".

Among others elected are Dr. R. R. Anderson, of Milton, who was elected for Halton by a large majority and who has great influence in central Ontario, his popularity equalling his strength, also, Drs. A. T. Thompson, N McKay, A Dennis, Blackadder, J. C. Carruthers, and D. J. Sinclair.

Some good men have been defeated. Among the best is Dr. Michael Steele, of Tavistock, undoubtedly one of the most able and high-minded men in the last Parliament. So far as knowledge of hygiene and cognate subjects are concerned. he may be placed in the same class with Dr. Chas. Sheard.

We think the defeat of the Hon. Dr. Edwards, of Kingston, was unfortunate, although in this part of Canada he was known as a successful politician rather than a practising physician. The defeat of Dr. McGibbon, of Bracebridge, in the Muskoka contest, caused marked surprise and deep regret. We do not know yet the secret of his defeat but we understand that his successful opponent was a Progressive, and that the farmers' vote went largely against him. The defeat of our friend Hon. Dr. L. P. Normand, of Three Rivers, caused much regret. Throughout other parts of Canada he was one of the best-known physicians of the Province of Quebec, and took a great interest in matters connected with the Canadian Medical Association, being first vice-president in 1910.

Child Welfare

One of the important events of last summer was the meeting of the Second English Speaking Conference on Infant Welfare in London on July 5th, 6th and 7th. There were three conferences on Child Welfare in 1921, which deserved the name of "International" and probably none of them was more important than this. In the war, the English said a great deal in praise of the Canadian Troops and the Australian troops and the American troops and all other troops, but never a word about themselves. They confined their attention to doing and not talking. It is so in peace. It may come as a distinct shock to some of our readers who have been familar with the record Infant Mortality of New Zealand (for which Heaven be praised,) to learn that the Infant Mortality in Hampstead, London, is just as good, namely, between 40 and 41 per 1,000 living births.

We can remember paying $5.00 or more for books in which there was much less information and much less common sense than in the unpretentious paper covered volume of 306 pages (advertisements not included) now before us.* The army of Child Welfare workers is a great one and recruits are coming in every day. Each one of these soldiers, fighting the battle for the baby, should have in his or her knapsack a copy of this report. The views expressed are authoritative and up-to-date. We find often in reading a book that the most difficult parts of the subject are carefully omitted, but that is not the case in the present volume. For example, here are the remarks of Dr. J. C. Drummond, Reader in Biochemistry, University College, London, in his address on the "Physiological Aspect of the Milk Supply," with reference to vitamines. Someone during the discussion had remarked that the pasteurization of milk destroyed these essential substances. Dr. Drummond replies to this speaker as follows—

"Perhaps he has some information which I have not obtained and have not been able to obtain—but at the present moment I feel justified in saying that the available information does not support so drastic a statement. A definite result, a definite decision of the point has not yet, so far as I am aware, been reached. I think the impression has arisen from the fact that a few years ago the statement was made that heating foodstuffs will destroy these vitamines. We have had, within the last year or two, to modify this idea. The effect of pasteuriza-

tion on the food value of milk is not being worked out by strictly quantitive methods, and I do not think a definite result has yet been obtained. We know now that in the drying of milk the loss is not so great as we had previously imagined.

I would like to refer to the commercial preparation of these so-called vitamines. I do think it is important that mothers, during pregnancy, should have a liberal diet as far as is possible containing substances which supply these. At the present time there are very many commercial preparations being put on the market with the idea of supplying these substances more or less in tabloid form. I do not wish to condemn all these preparations straight away. I have examined a good number of them myself. Some of them I have found to be completely inactive, and therefore are frauds. Others of them do certainly contain these substances in varying quantities. What I would like to impress upon you is this, that the whole question of vitamines is one of common sense. Our grandmothers knew very little about vitamines, but they did know a great deal about good, fresh natural food-stuffs. These commercial preparations must, in the process of manufacture, involve very great expense, and I very much doubt myself whether any of those at present on the market, or any of those which will be put on the market in the near future, can possibly replace or be as good as the food value of good dairy produce and of fruit and fresh vegetables."

*Report of the proceedings of the Second English Speaking Conference on Infant Welfare, published by the National League for Health, Maternity and Child Welfare, 117 Piccadilly, London, W., 2s. 6d.

Full-time Professorships

The most thorough specimen of the German ideal of teaching is the full-time professorship. If there was one thing the majority of level headed teachers and general practitioners of this and most other parts of Canada did not want, it was the full-time professor. We publish in this issue two illuminating articles on the subject, one a portion of an editorial from the *New York Medical Record,* the other from the address of the President of the most representative Surgical Association of North America.

It is a little over seven years ago that Dr. Theodore C. Janeway was called from his field of useful and productive activity in this city to take the chair of medicine at the Johns Hopkins University on a full-time basis. The University had just received a grant of $1,400,000 from the Rockefeller Foundation on condition, so it was reported, that it would adopt this Teutonic idea of teaching the science of medicine, leaving the art to be gained by experience. This was, we believe, the first time the plan was put into practice in this country, and it was regarded with approval by many, for the German idol had not yet been smashed. The *Medical Record* questioned the wisdom of the innovation, believing that the obvious disadvantages of the full time clinical professorship would far outweigh its possible advantages. Although it is perhaps too soon to know whether the students turned out from these full-time institutions are as good practitioners of medicine and surgery as those educated under more human conditions, it is certain that the productive activity of the professors has not been increased by taking from them the incentive if not the power of growth.

There are hopeful signs that the pendulum has swung about as far in this direction as it will, and that the era of formalism in medical teaching is nearing its limit. A welcome note has been sounded by Dr. Deaver of Philadelphia, who in his presidential address before the American College of Surgeons, expressed himself as opposed to the full-time clinical professorship.

Now that Dr. Deaver has had the courage to protest against this full-time fad, we hope others will come out in support of a return to a sane and rational system of medical teaching. It is argued that the full-time professor has his hospital practice to help him keep abreast of the times and prevent fossilization, but there is a gulf between institutional practice and private practice as wide and as deep as that between organized charity and human sympathy. Imagine such giants as John Warren, Samuel D. Gross, Austin Flint, and Alonzo Clark in the guise of full-time professors!—*Editorial, New York Medical Record,* Nov. 5th, 1921.

Dr. Deaver, the distinguished surgeon and teacher of surgery in Philadelphia, in his presidential address, at the annual meeting of the American Surgical Association, in October, 1921, spoke in part, as follows:

I am thinking of the recent furor in favor of the full-time teacher in clinical branches. . . .I am not questioning the motives of the originators of this audacious movement, but I am watching for its results, not too brilliant so far, and promising less. I am concerned for the student and would be alarmed for the profession were it not for my great confidence in the sober sense of the great body of a democracy such as this which will eventually work its way towards its own proper method of dealing safely and sanely with conditions. Still I marvel at the new super-intelligence which in rapid pursuit of its ideal sets aside the principle of natural selection, the well-proved motive of human endeavor (high reward), and the cardinal virtue for the attainment of practical results (experience). In my heart I am thankful that such men had no voice in the selection of a generalissimo for the Allied armies.

During the last five years, as you know, the tendency has been toward the full-time clinical teacher. Its central idea was good, but its application, begun before the war, if I mistake not, was influenced by the German idea of efficiency which, as all now know, failed utterly to include the human element in its equation. Without wishing to appear reactionary, but with all interests of the profession in mind, I do not hesitate to say that I doubt the wisdom of the present course. . . The professor of clinical branches should not only be allowed. he should be obliged, to be in direct professional contact with the public. . . . It is our profound belief that the system for full-time salaried chairs for the clinical branches which has been forced upon a number of our foremost institutions by powerful influence is not only contrary to the spirit of American institutions, and contrary to the proper working of the human mind, but is sure to result in degeneration of that art which is the true flower of science, and in the deterioration of the instruction of the student how to deal effectively with the problems which he must confront in his chosen life work.

News Items

Doctors and the State

There is, in England, a strong medical opposition to the control of the Profession by "Officials."

The medical correspondent of *The London Times* writes somewhat as follows: The statement recently made public that the Minister of Health means to economise on the medical treatment of the nation has provoked an instant response.

Mass meetings of doctors are being held and they are raising the question whether or not the whole connection with the State should not be broken. The correspondent states that the money question is not uppermost, except in this respect—that the proposed reduction does definitely mean a lowered service. The doctors think they have discovered that "in its heart the Medical Bureaucracy despises and dislikes the working medical man and his intimate relation with his patient."

He thinks there is no soul in a Medical Bureaucracy. It seems to have neither sympathy nor tenderness. "Its object is to create a medical machine and to get rid of the humanity which makes a doctor the friend of his patient."

Meantime, the so-called "services" have come into existence. A "service" is an organization of doctors employed on a whole-time basis to carry out certain duties. These doctors are not in intimate relation with the public. They are controlled from Whitehall, their masters dwell not in the homes of the people but in government offices.

Diploma in Radiology

The British Association for the advancement of Radiology and Physiotherapy held its fourth annual meeting in September. Perhaps the most interesting item in the report of the President is the establishment of a diploma in Medical Radiology and Electrology—D.M.R. & E. (Cantab.)—the course leading to this degree being a post-graduate one. A Society of Radiographers also has been established for lay assistants in X-ray and electrical departments. The diploma of

this Society—Member of the Science of Radiographers—M.S.R.—can be obtained by examination only. All members undertake not to accept any patients for diagnosis or treatment, except under the direction of a qualified medical man.

In this connection it is interesting to note the step which has been taken by the University of Toronto. We publish herewith details of the course leading to a Diploma in Radiology. Candidates must (a) be graduates in Medicine, and (b) have done some hospital work after graduation. The curriculum extends over one session of eight months, which will be devoted to course in (a) Physics. (b) Radiology. Examinations will be held at the end of the session, and successful candidates will be granted the diploma of Radiology.

In order to meet the needs of those who desire short courses of instruction in Radiology, three courses a year of one month each will be provided at the Toronto General Hospital. The tentative dates are as follows:

1st Course.....February 15th—March 15th, 1922.
2nd Course.....October, 1922.
3rd Course.....January, 1923.

For full information and terms apply to the Secretary, Faculty of Medicine, University of Toronto.

Toronto Preventorium

We are glad to report that the magnificent institution, The Preventorium, in North Yonge Street, Toronto, established nine years ago, chiefly through the generosity and zeal of Col. and Mrs. Albert Gooderham, is now in a prosperous condition and doing excellent work.

At the annual meeting, held November 21st, the treasurer's report showed that the cost of maintenance for the year had been $33,000. At present there are eighty-two children in the institution; fifty-two being between four and fourteen years old; sixteen between two and four, and fourteen babies under two. All the children are drawn from homes in which tuberculosis has found a foothold and have to come to The Preventorium through the Tuberculosis Clinic at the Sick Children's Hospital.

Nurses for all Classes

We are pleased to announce that the Canadian Association of Trained Nurses have decided to organize a system of hourly nursing in Toronto, whereby the benefits of skilled nursing may be brought within reach of all in moderate circumstances. We are not certain what the fee is likely to be but we understand that, for a time at least, partly as a matter of experiment, the charge will be one dollar an hour.

Medical Faculty, Western University

The new building of the Medical Faculty of Western University, London, was opened November 16th.

Mr. C. R. Somerville presented, on behalf of the Board of Governors, a portrait of the late H. A. McCallum, for many years Dean of the Medical Faculty. The painting was unveiled by Hon. Dr. Roche.

Hon. R. H. Grant, Minister of Education for Ontario, congratulated the citizens of London, and the people of Western Ontario generally, for the evidence of their enterprise in educational matters. He then declared the new medical school on Ottaway Avenue open.

He said that in dealing with the claims of Western University, the Government had a problem to solve. "We must see to it that the young generation now growing up take the right turning when the destinies of the world pass into their hands. The remedy for war, ignorance, poverty, and crime, is not less education, but more education. Although I live a long distance to the east, I am not so narrow-minded as to fail to recognize the energy and the enterprise of the West. Its educational importance alone establishes your right to the sympathy and support of any minister of education, whoever he may be. For instance, from a line drawn west of Toronto and including the Niagara Peninsula, you had by the census of 1911 over 1,000,000 population. In that area there are more than 6,000 teachers and a school attendance exceeding 230,000. That is, you have 40 per cent. of the total school attendance of the province. You have 142 secondary schools with an attendance of 17,500, or 46 per cent. of the whole. As a source of supply for teachers, the fact that three normal schools exist in Western Ontario vouches for your ability to staff the primary and secondary schools. In the

day and evening classes for technical and industrial instruction Western Ontario records an attendance of more than 12,000. In no part of Canada have the ideas of vocational training for all classes of students been more enthusiastically taken up. Could a Government ignore all these facts in considering the claims of Western University?"

Toronto's First Automobile

Our friend, Dr. P. E. Doolittle, purchased the first horseless carriage used in Toronto just twenty years ago, from Mr. John Mond of Hamilton. It came originally from Winton Bros., of Cleveland, Ohio, at that time bicycle manufacturers, and was one of four made as an experiment. The machine was a true horseless buggy, with wire wheels and single tube tires. The engine was a one cylinder gas one, and it could develop under favorable circumstances, the great speed of 18 miles an hour.

The Medical Profession

At the Halifax meeting of the Canadian Medical Association, the president, Dr. Murdoch Chisholm, deprecated the present day tendency towards extremes in specialization, and also expressed the opinion that medical students spent far too much time on subjects which are of little or no use to the practising physician; and he considered that some of the medical colleges were, at the present time, turning out many "bedside incompetents."

Drug Addicts

We understand that drug addicts are becoming more numerous during the last two years than ever before in the history of Canada. Early in December the police of Toronto arrested one man who had been in possession of over $300 worth of morphine, cocaine, hypodermic needles, etc. The man arrested, Daniel Marony by name, admitted in the court that he was a drug addict and was in the habit of using 18 to 20 grains of cocaine a day.

Medical Faculty, University of Toronto

As everyone knows, the condition of things in the Faculty is serious. In lookng for causes we should go back a few years. The Whitney Government showed sad errors of judgment in its last Amended University Act. It practically destroyed the Senate, the best educational governing body in North America. In defiance of all democratic principles, the Government decided to do away with the elective system entirely and themselves select and appoint a Board of Governors. They also appointed a new President, giving him unlimited powers. Since the scheme has become unsatisfactory, it seems unfair now to blame the President, who never asked for such powers.

There is almost, if not quite, a consensus of opinion now that positions on the teaching staff should not be in the hands of one individual to fill. Sir William Osler thought that the Faculty should participate in such elections. "It is the inherent right of a faculty. In Oxford we have a board of electors in each chair."

For some years there has been doubt as to the loyalty of the Graduates in Medicine. Several letters were sent to graduates asking for their opinions regarding the situation. It has been found difficult or impossible to get replies from certain localities. For instance, letters were sent to three prominent physicians of Hamilton, who have sent no replies up to the time of writing. A fourth party tells us there is considerable apathy in that city and with it a certain amount of contempt for the lack of harmony in University circles.

However, the symposium which immediately follows contains many and varied expressions of opinion, which to some at least will be illuminating and interesting. The PRACTITIONER is responsible for withholding the names of the writers—all graduates in good standing.

Re Loyalty of Medical Graduates

Regarding the various occurrences in the University in recent years I have to say the outstanding figure at present with me is Dr. (Gen.) John Fotheringham. In the war he "did his bit" in a magnificent way. When he came back he got from his alma mater only kicks and cuffs.

I think that Drs. Fotheringham and Harry Anderson were the first of the Trinity staff to advocate amalgamation. When, after some years of discussion, there was a union of

the two faculties, it was really absorption, not amalgamation. The attitude of the Toronto men was courteous and intended to be kindly, but there was something lacking. The newcomers were treated as guests, not as members of the family. They felt like onlookers, and soon lost interest, but made no complaints. When a new Dean was to be appointed for the combined Faculty it seemed fitting to many that Dr. Temple, the Dean of Trinity, elected after Dr. Geikie's retirement, while negotiations for amalgamation were going on, should be the man. But "there were difficulties." A vacancy in Therapeutics occurred, and many thought it would be fitting, and also a graceful act, to make Dr. Fotheringham—the best teacher of Therapeutics in Trinity—the Professor. But "there were difficulties." Difficulties were found—or created—with wondrous facility in those days. However, two men of undoubted capacity and ability were appointed, and none disapproved. At a certain time four of Trinity's ablest teachers were *squeezed* out. But one may say: they retired voluntarily. Yes: they did—but with an unsatisfactory temper of mind. For instance, one said, "I am sick and tired of it" another said, "I am glad to get out of it." It is a long story, and a very unpleasant one, but I hoped that this feeling of quiet dissatisfaction was wearing away. Suddenly, however, came that "bolt from the blue," —the treatment of John Fotheringham, which has created a feeling of indignation among the graduates of Trinity, which is practically indescribable.

B.A., M.D.

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As far as I can learn there has been no sign of disloyalty among the graduates in medicine, but there is a great feeling of dissatisfaction. I have met many of them, and, with one accord, they voice their disapproval of the recent changes in the teaching of medicine.

I never knew the course in the fourth year as poor as at present. The students are getting less for their money than at any time during the last twenty years. In spite of this, the President has stated many times that the teaching is "much improved." There are more students and fewer patients than ever before. Those physicians of wide culture and sound judgment, formerly holding the clinics, have been relegated to the limbo of forlorn hope, to the great disadvantage of the young and growing student.

Perhaps the thing most talked about by the graduates I meet, next to the appointment of the Professor in the Chair of Medicine—still a nine days' wonder—is the brutal treatment handed out to Fotheringham, Chambers *et al.* Everywhere the comment on their dismissal is most caustic. If you could bring this matter forcibly before the Board of Governors, perhaps you could make them see that the Medical Faculty is being manipulated by a few men, not more than five, and that the old spirit of democracy has given place, in this new order of things, to a plutocracy which is as dangerous as it is impudent.

Nemo.

* * * * * * * *

In reply to your enquiry, there is undoubtedly much adverse criticism among the profession generally of the way in which the Faculty of Medicine of Toronto University has been conducted of recent years. This is not found merely among those who, for various reasons, might bear resentment because of failure to receive some appointment, but is found among those who never, at any time, were ambitious for teaching or hospital positions.

From what one gathers the main points of criticism are:

(1) The appointment as nominal head of the Department of Medicine of a man whose training was almost wholly laboratory: who had no knowledge of the "Practice" of medicine, and who is said to be not a very inspiring teacher; this too, when it is well-known that several men of recognised ability as clinical teachers were available.

(2) That in the re-organization of the Department of Medicine many excellent teachers were relieved of their positions, while recent graduates with much less practical experience were appointed in their places.

(3) Many of the men who made the greatest material sacrifices through their War Service were unceremoniously removed from office, and their many years of faithful service to the University absolutely unrecognised.

(4) The practising physician in Toronto resents the virtual "contract practice" that is said to exist in the Toronto General Hospital—the University Hospital—whereby the employees of large industries re-

ceive treatment for which their firms pay the Hospital. In other words, the Hospital is engaging in the practice of medicine.

(5) There is a feeling among the graduates that the whole policy of the Faculty of Medicine is being dictated by two or three men who have gained the ear of wealthy benefactors, and who, apparently, have been able to hypnotize the Board of Governors and the President to their viewpoint.

(6) There is a very strong feeling in the Faculty itself, because their honoraria have been discontinued in order that a certain select few men should receive salaries for so-called "almost full-time" positions, which positions apparently do not prevent the carrying-on of a large amount of private practice.

The graduates are discussing these matters very freely, and, it would appear that, unless there is soon a changed attitude on the part of those in control of the Faculty, a very wide breach will develop between the Faculty and the practising profession. This will do more harm to the Faculty than it will to the Profession, and if the President and Board of Governors are alive to the situation they would do well to listen to advice from other quarters rather than be guided wholly by the small coterie at present apparently in full control of medical education in the University of Toronto.

B.A., M.B.

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In the old days of the two schools here, Trinity and Toronto, there was very pronounced loyalty on the part of all graduates to their respective *Almae Matres*. This feeling exists, I believe, among these men, tempered, of course, by age and the experiences of life, as strongly as ever, but *not* to the present Faculty of Medicine in the University of Toronto. They believe that in place of *esprit de corps* within the Faculty and the Hospital which the Faculty controls, there exists the spirit of a clique, self-interested, and, to a large degree, contemptuous of the work and merits of practitioners not enjoying the favored positions which they themselves enjoy. The feeling is widely existent that the temper of the Faculty is inhumane and lacking in the milk of human kindness, which is the essence of the true medical temperment, in their relations alike with colleagues, students, and the hospital patients, who constitute the raw material of their industry.

The lack of loyalty referred to is enhanced by lack of confidence in the quality of the instruction given, and is quite as noticeable among the younger men as among those who remember the two old schools in the days preceding the amalgamation in 1903. *Vae Victis.*

* * * * * * * *

Speak to the Medical Graduate of Toronto University, by the curbstone or elsewhere in your neighborhood, and you will find that there is little or nothing of loyalty in him in so far as his feelings for the University are concerned. He is distressed at feeling himself an outcast; he is fearful for the future of Medical Education in Canada, and is suspicious of the intentions of those who exercise coterie control of the present policy of the institution. He recognizes that many brilliant teachers of medicine have been, and are being, treated unjustly, and that graduates are being driven to forget the splendid ideals of their forefathers in medicine. Being utterly unable to adore what he would, his love for his Alma Mater is stultified and he bemoans his inability to even pay it respect.

Go beyond your own neighborhood through the fair Province of Ontario, or farther still to the Western Coast, and similar feelings are decidedly evident.

Control the autocratic power of its president, and establish a British fair play and fair competition democracy in the University of Toronto, and great good will be accomplished.

Hometruth.

* * * * * * * *

I think your idea is a very good one and especially at the present juncture when there is such a distinct undercurrent of unrest prevailing, not only in the ranks of the teachers in the Medical Faculty in the University of Toronto, but its graduates as well, in Ontario and throughout the Dominion of Canada. Having been in very close touch with the medical profession of different parts of Canada for some time I have heard much about the University which, unfortunately, is unfit for publication.

Z.

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There is a general feeling among the Graduates of the University of Toronto to the effect that, unless one belongs to a certain clique or *Fraternity*, he has no place. One's qualifica-

tions, or one's standing in the medical profession, make no difference to the men who make appointments, and who run the University. Consequently there is no encouragement to take post-graduate work. The only requisite is that one should be in complete accord with the ideas of the clique in power.

Friends of the men connected with this clique or *Fraternity* can be recommended to positions in spite of their lack of ability. All these appointments are preceded by propaganda.

In my estimation the Medical Faculty of the University of Toronto ought to be run on democratic principles, not those of an autocracy.

"Alexander".

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As a result of the stand taken by me on the re-organization of the Faculty and my resignation two years ago, any opinion of mine would probably be considered prejudiced, and, therefore, worse than useless for your purpose.

X.

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In so far as my observation goes, the feeling among the graduates of my acquaintance is one of sheer indifference to the welfare and aims of the University. The chief reason for this, no doubt, is the indifferent and callous way in which many of them—for years teachers—have been treated. Another reason, I surmise, lies in the existence of the old "caste" system—a relic of the weak regime of a former president. Is the present incumbent strong enough to dominate all cliques ?

Verax.

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I have not noted any disloyalty to the University in the graduates I have met recently. I realize, however, that a few years ago, when we had the Medical Alumni Association, there was a much more active interest in all it had to do with the welfare of our Alma Mater.

H. S.

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Speaking as to the loyalty of the students of Toronto University, I have only to say that, as I am a graduate of Trinity, I am unable to give an opinion, but I can speak very strongly on the loyalty of Trinity men who live in the Bay of Quinte district.

Trin.

Correspondence

Stipends Mulcted to Promote Development

To the Editor of the CANADIAN PRACTITIONER:

Dear Sir:

There appeared in *The Telegram,* Toronto, December 3rd, 1921, under the caption, "No Dictation from the U.S." an article regarding the Rockefeller gift of $1,000,000 to the University of Toronto for work in its Medical Faculty.

The President, Sir Robert Falconer, is quoted as saying, "We did not ask for the gift at all. One day two years ago we saw in the papers that $5,000,000 would be given to the Universities. The representatives of the Rockefeller Foundation came and saw what we were doing and offered us $1,000,000. They laid no policy down."

The CANADIAN PRACTITIONER AND REVIEW, Nov., 1921, published a letter emanating from the office of the President of Toronto University and which, it is understood, was received by the vast majority of the associate professors and assistant teachers in the Clinical Departments of the Faculty of Medicine.

This letter states that the Rockefeller Foundation in making the gift stipulated that the University should spend no less than formerly on the departments of the Faculty of Medicine.

It is also generally understood that amongst other conditions it was advised that certain buildings must be erected, and notably an anatomical and laboratory building.

The report referred to in the latter, as of March, 1920, is quite obviously the one drawn up by the Faculty of Medicine for presentation to the representatives of the Rockefeller Foundation before their arrival here to see "what we were doing," it having been intimated that the Universities of Canada might receive a grant to further medical education.

This report outlined a plan of re-organisation of the staff involving a marked increase in the budget of each department, salaries for all teachers included, and the estimated annual expenditure amounted to approximately $200,000, or the interest on a capital sum of $4,000,000 at 5 per cent.

The Rockefeller representatives came, and they saw, and after many months' deliberation, it is reported that they decided to place at the disposal of Toronto University, the interest on $1,000,000, or approximately $50,000 a year for five years, and at the end of that time the capital sum, if development outlined has satisfactorily progressed.

The Government of the Province of Ontario is accorded the distinction of refusing to meet the necessary added expenditure in the development of the Faculty of Medicine, and as will be seen in the President's letter, the University has decided upon meeting a portion of the increase for development by depriving the great majority of teachers in Clinical subjects of their annual stipends while retaining their services to promote such development. By this policy a part of the many thousands of dollars mulcted from the teachers, who are the backbone of the institution, is to be devoted to the payment of "salaries for such of the staff in the clinical departments as are not dependent for their living upon private practice and are giving all or nearly all their time to the work of the University."

The so-called full time professors and other teachers are recommended in the report on which the Rockefeller gift is conditionally granted, while it is provided by the University that such may also have some hours of the day in which to engage in private practice.

As to the balance of the mulcted money, it is reported that the "gratis" teachers have recently been advised that it will be "pooled" and allowed to accumulate during the first five years of extended development, to be used mainly for the equipping of the new laboratories which must be built in order to secure the Rockefeller capital sum.

Information is not at hand as to the distribution of the present revenue which, in addition to some grants from the government of the Province, includes $25,000 a year from the gift of Sir John and Lady Eaton, $50,000 a year from the gift of the Rockefeller Foundation, and an approximate sum of $160,000, during the present annual session, on account of students' fees, or a known total of $235,000, without the Government grant.

As this amount is considerably in excess of the liberal budget of the March, 1920 report, on the development "aimed at during the next ten years," it is most difficult to comprehend the system of administration which does not even comply with the condition of the Rockefeller gift "that no less should be spent by the Governors than formerly on the departments of

the Faculty of Medicine," unless perchance a large amount of the annual revenue is being devoted to preparedness for the ultimate merit of the Rockefeller capital sum.

It may happen that in due time all these intricate procedures may evolve either substantial success, or regrettable failure, but does it seem reasonable to believe that the Rockefeller gift is coming to Toronto University "like money from home," or without any influence on the present policy of the institution?

F. W.

Extracts from Letter to Dr. W. H. B. Aikins, Toronto

Paris, November 26th, 1921.

My dear Doctor:

As you are good enough to interest yourself in what I am doing, I am taking the liberty of sending you the paper which I read at the Congress of French-speaking Gynæcologists and Obstetricians, held in Paris, September and October, 1921. This article does not cover a wide field, but still it has an interest which may be appreciated by many....As you will see, the word "curietherapy" is substituted for "radiumtherapy." This is my reason: For some time I have held that, among medical men, a confusion,—much to be regretted—has existed between radium and X-rays, both being termed, indiscriminately, radiotherapy. But the Germans have furnished the word, "roentgentherapy" for X-rays. It seemed to me that the word, "curietherapy" would do honor to our scientists, and would avoid confusion. I proposed this word at the London Congress, in 1913, with little success. When I proposed it later at the Congress of Gynæcologists in Brussels, in 1919, it was accepted, and since then it has met with so much success that the term "curietherapy" now implies all radium treatment.

If you could bring about its acceptance in Canada, we French curietherapeutists should most sincerely appreciate it, for it would show due respect to our great scientists....

P. Degrais.

Toronto, December 2nd, 1921

Sir:

I should like to correct an item or two appearing in recent numbers of the CANADIAN PRACTITIONER.

The present quarters of the Provincial Board, the Public Health Laboratories and the Registrar-General's Department in Spadina Avenue just north of College Street, are to be known not as Spadina Hall but *Spadina House*, this being the name given to his residence built in 1820 by Dr. W. W. Baldwin who in 1813-1814 had laid out the finest street in Toronto, Spadina Ave., (160 feet wide) and placed his house at the head of the street.

Spadina House (No. II) was built in 1874, and the fire-proof addition built this year serves as the quarters of the Registrar-General's Department where the Provincial Records of Births, Marriages and Deaths are cared for.

In a previous number of the PRACTITIONER the statement was made that the Child Welfare Train sent out this year by the Child Welfare Association of Montreal was the first of its kind in Canada. As a matter of fact the Provincial Board of Health had a public Health and Tuberculosis train in the years 1910-1911 which visited 58 towns and cities in Ontario and in 1913 this train was reorganized to include exhibits not only relating to Public Health and Tuberculosis but also Child Hygiene. Therefore priority for such enterprise must properly belong to the Provincial Board of Health of Ontario.

J. W. S. McCULLOUGH.
Chief Officer of Health.

Personals

Dr. Julian Derwent Loudon, of 83 St. George Street, Chief Physician to St. Michael's Hospital, wishes to announce that he is limiting his practice to consultations in Internal Medicine.

Dr. W. B. Thistle wishes to announce that he has taken an office at 124 Bloor Street West and is confining his practice as formerly to General Medicine.

Dr. Allan G. Hurdman, L. R. C. P. S. E., L. F. P. S. G., desires to announce that he has opened offices at Ottawa, where his practice will be limited to Diseases of the Stomach and Intestines, in which he has specialized for eighteen years.

Dr. Howard Burnham wishes to announce that he has taken offices at 52 Bloor Street West, where he will confine his practice to Diseases of the Ear, Nose and Throat. Dr. Burnham has made a thorough study of this branch of medicine having served as interne in the New York Eye and Ear Infirmary for a year and a half, in the Willard Parker Hospital, New York, where he did intubation and allied work, and in the Tonsil Hospital, New York.

Dr. C. S. Cronk, M.B., U. of T., 1919, a practitioner of Belleville, has been appointed Medical Health Officer of that city in the place of Dr. Horace Yeomans, deceased.

Obituaries

T. Stanley Orr, M.B.

Dr. Stanley Orr died at his home, 686 Main St. E., Hamilton, November 5th, aged 50. He graduated, M.B., from the Universty of Toronto in 1909. He commenced practice in Hamilton in 1910, and, though his health had been rather poor, he continued in his harness, until the night before his death. He had a good practice in Hamilton, and was highly respected by all classes in the city.

Henry J. Cole, M.D.

Dr. H. J. Cole, of Brantford, died at his home in that city, September 1st, aged 72. He was educated in the Toronto School of Medicine, and graduated, M.B., from the University of Toronto, in 1871. Soon after he settled in Brantford, where he remained in general practice up to the time of his last illness.

T. Lomas Millman, M.D., M.R.C.S., (Eng.)

Dr. T. L. Millman, of Toronto, died suddenly at his home, November 15th, from apoplexy, aged 71. Born near Woodstock, he received his medical education in Trinity Medical College, and graduated M.D. from Trinity University in 1873. He then served two years as assistant-physician to the British American Boundary Commission. He did postgraduate work in London and Edinburgh in 1875-6, when he qualified for M.R.C.S. (Eng.). Going to Woodstock

in 1876, he practised there three years. He gave up general practice in 1879, when he became Assistant in the London Hospital for Insane, but was transferred to Kingston in 1885.

He was appointed Secretary of the Medical Board of the I.O.F. in 1889, and Supreme Physician in 1899, which position he retained up to the end of his life, doing full work on the last day. As a physician he excelled, as an administrator he was unsurpassed, as a man and a citizen he was always in the top row.

Walter H. Moorehouse, M.D., L.R.C.P., Edin.

Dr. Moorehouse, one of the most prominent physicians of London, Ont., died at his residence in that city, October 25th, aged 80. He graduated, M.D., from Trinity University, in 1875. He spent part of his student career abroad and qualified for the two colleges in Edinburgh, that of Physicians and also Surgeons, in 1874. In addition to a large professional practice he did much work in connection with medical societies and educational institutions. He was a past president of the following societies: London Medical Association, Ontario Medical Association, and Canadian Medical Association; Dean of the Western Medical College, Vice-Chancellor of the Western University, member, and for one year, president, of the Medical Council of Ontario.

John H. Wallace, M.D.

Dr. J. H. Wallace, formerly of London, Ont., died in the Receiving Hospital, Detroit, November 10th. Dr. Wallace was a native of Aukland, N.Z., and was with the first Anzac army which landed at Suvla Bay. Transferred to France, he was wounded at the West Front, and was invalided home, but while on his way through Canada he stopped in London. There he finished his medical course at the Western University, and was for a time an interne at St. Joseph's Hospital in that city.

Jennie Trout, M.D.

Mrs. Jennie Trout, M.D., died at Los Angeles, California, October 30th, aged 80. She and Mrs. Stowe (mother of Mrs. Stowe-Gullen) were the first women to study medicine in Canada. They entered the Toronto School of Medicine together about the year 1870. The medical students showed them little respect but they submitted with a certain quiet dignity which practically beat down all opposition during their first session. She and her husband, who was for many years manager of the Monetary Times, Toronto, went to Los Angeles fifteen years ago, and remained there up to the time of her last illness.

John Andrew Hershey, M.B.

Dr. J. A. Hershey, a practitioner of Owen Sound, died suddenly November 21st, aged 54. He was driving his motor car in the busiest part of the town when he appeared to lose control of it, which caused two nurses, who were riding in the car with him, to look at him carefully, when they discovered he was dead in his seat. He graduated M.B. from Toronto University in 1892.

Albert J. Fraleigh, M.D.

Dr. A. J. Fraleigh, a well-known practitioner in the eastern section of Toronto, died at his home, 149 Broadview Avenue, November 26th, after a lingering illness from diabetes, aged 46. He graduated M.D., from Trinity University in 1904, settled in Toronto, and soon acquired a large practice.

Addison J. Collver, M.D.

Dr. A. J. Collver died at his home at Otterville, Oxford County, December 2nd. He graduated M.D., from Victoria University, in 1862.

Selections

Overweight in Children

William R P. Emerson believes that overweight in children has not received the attention that its serious menace to health warrants. The symptoms of overweight are shown in the tax put upon the heart and other vital organs by the extra burden of weight carried. From this condition come lessened powers of endurance and diminished activity. Owing to the extra burden placed upon the lungs and circulation the overweight child is less likely to recover from pneumonia or other acute infection. Joslin states that obesity is a predisposition to diabetes. The chief cause of obesity is the habitual intake of more food than is burned up, usually carbohydrates and fats. It is remarkable how general is the idea, even among physicians, that the usual cause of obesity is some abnormality of the endocrine glands. The use of thyroid extract in the treatment of obesity is a short cut attended with danger to the growing tissues. The remedy for overweight is measured feeding. If there is no loss of weight with the reduction of one-third the amount of food usually taken, a further reduction of 100 calories per day should be made, until it is found what amount of food will bring about the desired weight loss.—*N.Y. Medical Record.*

Dr. Grenfell's Recollections

My hospital chief, Sir Frederick Treves, had operated upon a great big Norwegian, and the man had left the hospital cured. As a rule such patients do not even know the name of their surgeon. Some three weeks later, however, the man called at Sir Frederick Treves' house late one dark night. Having asked if he were the surgeon who had operated upon him, and getting a reply in the affirmative, he said he had come to return thanks, that since he left the hospital he had been wandering about without a penny to his name, waiting for a ship, but had secured a place on that day. He proceeded to cut out from the upper edge of his trousers a gold Norwegian five-kronen piece which his wife had sewn in there to be a stand-by in case of absolute need. He had been so hungry that he had been tempted to use it, but now had come to present it as a token of

gratitude—upon which he bowed and disappeared. Sir Frederick said he was so taken aback that he found himself standing in the hall, holding the coin, and bowing his visitor out. He said he could no more return it than you could offer your teacher a 'tip,' and he has preserved it as a much-prized possession."—*Grenfell's Autobiography.*

Statistical Study of Cancer

In a statistical study by Jeanselme and Barbe (*Annal. de Méd.*) of the cases of cancer treated at the Tenon Hospital during the years 1901-06 the following facts were elucidated: Of a total of 1,501 cases, 409 affected the uterus, 296 the stomach, and 155 the breast; in other words, these three organs accounted for about 57 per cent. of the complete series. Of the 296 cases of cancer of the stomach, 172 occurred in males and 124 in females. The next most frequent sites were the liver and bile ducts, the intestine, the rectum and anus, the tongue and the face. While cancer of the small intestine was twice as common in women as in men, cancer of the respiratory apparatus was six times more frequent in men than in women. This would appear to be due to the irritation caused by alcohol, tobacco, dust, and noxious vapours to which men are particularly exposed. Taking all cases into consideration, cancer was found to be almost exactly twice as common in women as in men. No evidence of the presence of endemic foci of cancer could be obtained.—*The British Medical Journal.*

Treatment of Arterial Hypertension by Benzyl Benzoate

Laubry and Mougeot (*Bull. et Mém. Soc. Méd. des Hôp. de Paris*) have studied the action of benzyl benzoate in hypertension, as recommended by Macht of Philadelphia, using a 20 per cent. alcoholic solution in doses of twenty drops. Its immediate effect was investigated both in normal subjects and in patients with hypertension. In the former its action was inconstant. Though a few showed a fall of 3 cm., in the majority of cases the blood pressure was not affected, showing that a healthy organism is able to adapt itself to veno-dilatation. In hypertension, on the other hand, a fall of blood pressure, as determined by Pachon's oscillometer, was the rule and ranged from 1 to 3 cm. It occurred about half an hour after taking the drug, became more pronounced at the end of forty-

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Potassium chloride	4.55%	Calcium phosphates	5.42%
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five minutes, and lasted about half an hour. The prolonged action of the drug was studied by giving it three or four times a day. No bad general or local effects were noted, and a rise of blood pressure was never observed. Fall of blood pressure was not constant, but all the more frequent and pronounced the farther removed the hypotension was from the stage of decompensation. In addition to changes in the blood pressure the drug caused improvement of the symptoms, as it relieved obstinate headache, vertigo, numbness, and vascular pain. In angina pectoris, however, its action was less marked than that of amyl nitrite or trinitrin. The drug caused no improvement in hypertension complicated by aortitis, nephritis, or confirmed insufficiency of the left ventricle. The hypotensive action of the drug lasts several days, and at the end of a week the doses may be reduced to a third or a quarter of the original dose. Stopping the drug is not followed by a reaction but only by a return of the blood pressure to its original height.—*The British Medical Journal.*

Acute Meningitus Due to Pfeiffer's Bacillus

According to Richardiere and Sales (*Bull. Soc. de Péd de Paris*), Blacque in 1911 collected fifty cases of meningitis due to Pfeiffer's bacillus, and emphasized its almost invariably fatal issue in infants. Most of the recorded cases have been secondary to other manifestations of influenza. The present writers, however, record a fatal case in a male infant of 4 months in whom the meningitis was primary and there was no history of exposure to influenza. Lumbar puncture and puncture through the anterior fontanelle showed that the meningitis was cerebro-spinal. The cerebro-spinal fluid was purulent and contained a large quantity of Pfeiffer's bacilli. Immediately after being withdrawn the fluid formed a thick clot surmounted by a layer of clear fluid, as the writers had found in another case of meningitis due to Pfeiffer's bacillus. There was no autopsy.—*The British Medical Journal.*

Premenstrual Fever

According to Hovelacque (*Journ. de méd. et de chir. prat.*), who records an illustrative case in her Paris thesis, premenstrual fever is observed in convalescence from acute illness, in women suffering from disease of the adnexa,

Heat vs. Cold

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The application of cold packs to the thoracic wall as a remedial agent in the treatment of pneumonia is rapidly being discarded by practitioners.

The application of heat is again in favor and physicians in every part of the country are now convinced that the logical, safe and sane method of treating pneumonia includes the application of prolonged moist heat over the entire thoracic wall.

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especially if menstruation is delayed; also in patients with slumbering foci of infection, such as chronic bronchitis, dilatation of the bronchi, and appendicitis. Tuberculosis is the most frequent cause of premenstrual fever. The temperature rises four or five days before the onset of menstruation, sometimes as high as 104° F. The rise of temperature is occasionally accompanied by acute pulmonary congestion or hæmoptysis. In such cases an aggravation of the pulmonary lesion is to be feared. In tuberculous patients with amenorrhoea premenstrual rises of temperature are frequent. Premenstrual fever is generally due to ovarian or glandular disturbance caused by tuberculosis, which should always be suspected when no other factor can be incriminated.—*The British Medical Journal.*

The Relations of Carcinoma of the Stomach to Gastric Ulcer

By Von Bomhard, H. (Ein Beitrag zu den Beziehungen des Magencarcinoms zum Magengeschwuer). *Muenchen. med. Wchnschr.*

That a gastric cancer may develop from an old gastric ulcer has been known for a long time, but undoubtedly the frequency of this occurrence has been overestimated. The various authors who have studied the problem have come to quite different conclusions. Hauser, the pathologist, was the first to demonstrate the development of cancer at the edge of an ulcer. In general it may be stated that the occurrence of ulcer-carcinoma is relatively rare.

According to Konjetzny, who studied the subject extensively, we may assume that a cancer has developed on an ulcer basis only when the pathologic examination demonstrates that the ulcer shows the typical characteristics of a chronic gastric ulcer throughout and its edges and base show only partial cancerous infiltration. As in many cases it is entirely impossible to differentiate a callous ulcer from a carcinoma or to recognize beginning cancerous degeneration in an ulcer at the time of operation, the indication for the resection of ulcers must be considerably extended.

In examining a number of stomachs resected for ulcer the author was able to find only a single case in which a carcinoma developed on an ulcer basis. This case he reports in detail—*Surgery, Gynæcology and Obstetrics.*

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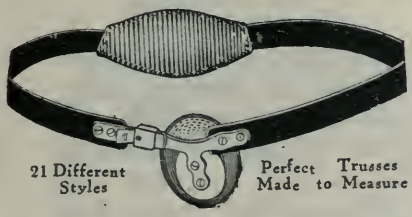

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The Cripples of the Great War

According to complications by the Red Cross the known crippled, according to *La Presse Médicale,* number nearly 6,000,000. Of this number nearly one-half are furnished by France and Germany, the former leading the latter by a hundred thousand. Great Britain is third with well over a million, Italy fourth with over half a million, Poland fifth with 320,000, the United States sixth with nearly 250,000, while present day Czecho Slovakia is seventh with 175,000. The Austria of to-day totals 164,000 and Jugo-Slavia has the same figure. Other figures are Canada with 88,000 (which, added to Great Britain, bring the grand total for that country up to a million and a quarter). The total for Roumania is 84,000 and that for Belgium 40,000. No figures are given for Russia or Bulgaria. These statistics, of course, give an imperfect idea of the total losses of the Teutons, as they are based wholly on postbellum geography. Apparently the countries which now represent ancient Austria furnish over half a million jointly, bringing the total of the Teuton armies to 2,000,000. The mutilated of Poland should be made up largely of former Russian soldiers.—*American Medicine.*

Fasting in Treatment of Diabetes

Labbé (*Annales de Medicine*), as a result of painstaking study of the effect of fasting in the treatment of diabetics, concludes that in the cases without emaciation it allows the sugar content not only of the urine, but of the blood to be brought back to normal. But when there is denutrition, this cannot be realized. Even if the glycosuria and acidosis are arrested, the effect is transient and they soon return. This transient and provisional effect is gained at too great expense; the patient is not rendered more resistant, and the evolution of the disease is not checked. In two of his patients thus temporarily improved, he was surprised at the brutal way in which coma developed soon after. The fasting treatment with denutrition should be reserved for acute accidents. In the premonitory period of coma in attacks of acidosis, fasting need not be feared, for it always mitigates the acidosis. But it is useless to impose repeated periods of fasting on these

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patients. Fasting is rarely necessary in diabetes with denutrition, and it should always be rational, not a routine procedure, and should always be carefully supervised.—*American Medicine.*

Some Uses and Doses of Hypnotics

F. Wyatt-Smith summarizes his personal experience in the treatment of mental diseases as follows: "(1) I do not believe there is any danger of producing an addiction to hypnotic drugs by their intelligent medicinal use. (2) Opium, and its products, should never be regarded as hypnotics. (3) The bromides are of little practical use as such. (4) Bicarbonate of sodium and night-socks have a far better right to the title. (5) Chloral hydrate is, perhaps, the most generally useful of the cheaper hypnotics; and is, probably, not very dangerous even in cases of fatty heart. (6) Paraldehyde is the best mere nightcap in mild cases, and is useful in a dose up to half an ounce with the first dose of some other hypnotic, such as sulphonal, to anticipate its coming into action. (7) Sulphonal is, except for its high price, the best of our hypnotics in that it is also a decided mental sedative. It appears to be quite safe in doses up to at least a dram a day, given in divided doses of 30 grains night and morning, or, better, of 20 grains three times daily. (8) Hyoscine is our strongest agent in an hypnotic emergency, and is quite safe up to 1/50, and probably up to 1/33 of a grain hypodermically. It should be given an extensive trial in delirium tremens.—*The Practitioner.*

Chronic Appendicitis

P. G. Skillern (*American Journal of Surgery*) concludes as follows:

1. Chronic appendicitis manifests itself by disturbances of the digestive tract, and of the nervous system, by various pains and aches—symptoms that rapidly disappear after removal of the diseased appendix.

2. These symptoms vary in number in direct proportion, usually, to the time of existence of the disease and to some extent with the type of the pathological appendix.

3. The diseased appendix is the greatest and most frequent disturber of peristalsis of any of the abdominal organs.

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For MATERNITY cases it is indicated for the nausea of pregnancy, for the discomforts of pregnancy, to restore the figure after confinement and for the dragging and pressure symptoms in pelvic disorders.

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The theory here advanced—one that explains the preoperative symptoms as well as the rapid postoperative disappearance of symptoms—is that the appendix at its tip initiates the peristaltic waves of the large bowel, but when fibrosed, kinked; strictured or bound down by adhesions is no longer able to functionate in this capacity; after removal of the appendix the peristaltic waves are initiated at what is now the beginning of the large bowel—the former site of the base of the appendix—and are able to continue unhampered and with regularity.

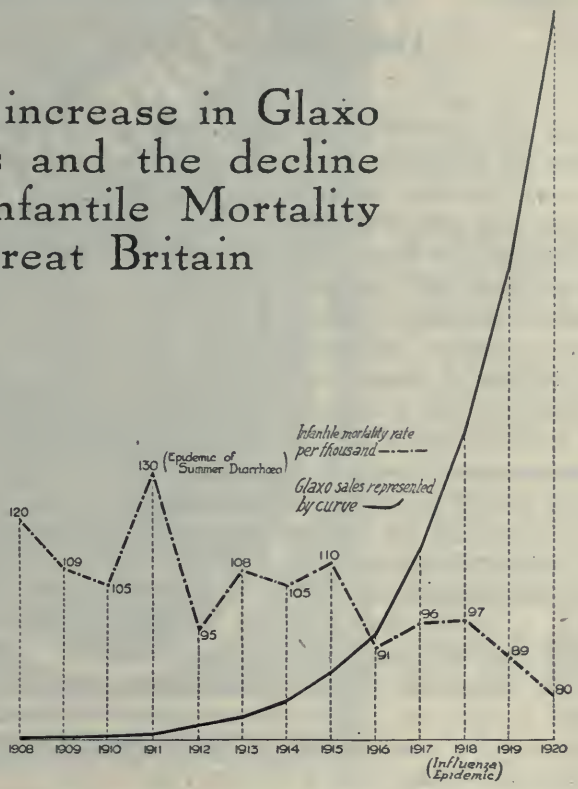
4. The diagnosis must be based upon a careful estimate of the case together with the results of local examination.

5. In view of the nervous state of many of these sufferers from chronic appendicitis it seems best to remove the appendix under local anesthesia, stealing it during twilight sleep. By this anociation method untoward reaction from the operation is practically never seen, and the nervous system recovers much more rapidly than after ether anesthesia.—*New York Medical Journal.*

Some Aspects of Cancer of the Prostate

Arthur L. Chute has found in going over his last 200 prostatectomies that in 35, or 17.5 per cent., the prostate was malignant. He deplores the present tendency among some genito-urinary surgeons to regard operation as scarcely worth doing in malignancy of the prostate. He concludes that in all instances where a malignant prostate is producing obstruction to urination it should be removed unless the patient's general condition is such as to absolutely preclude this. In the cases in which patients complain of pain in the thighs or sacrum, the perineal removal of the growth will give temporary relief in a number of the cases. Operation in carcinoma of the prostate should be carried out by the perineal route and radium should be left in any bits of suspicious tissue that remain, or in the cavity from which the prostate tissue has been removed. The removal of these growths may be carried out with relatively little risk when done by the perineal route. and there is little probability of a permanent fistula.—*Boston Medical and Surgical Journal.*

The increase in Glaxo sales and the decline of Infantile Mortality in Great Britain



The decline of the Infantile Mortality Rate in Great Britain is of course the result of many factors working to that end, and it would be unreasonable to attribute the decline solely to the remarkable increase in the use of Glaxo during recent years.

The sympathy between the two curves shown here is, however, striking; especially when it is remembered that Glaxo is used, almost to the total exclusion of liquid milk and "infant foods," by practically all (more than 1700) of the Infant Welfare Centres in Great Britain.

The remarkable decrease of Infantile Summer Diarrhœa is attributed by many authorities partly to the replacement of infective raw milk by Glaxo.

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The Value of Drugs

Has the value of drugs depreciated in the minds of the members of the medical profession? For some considerable time there have been those who have denied to all but a very few drugs any real therapeutic virtues, while there are cynics as to the merits of drugs, and there are even yet drug nihilists. Moreover, there have sprung within recent years various other methods of treating disease and conditions of ill health, such as vacine therapy, radiotherapy, and lastly those much overrated methods of diagnosing and treating certain affections, pyschoanalysis and pyschotherapy. All this at a first glance would seem to imply that belief in the efficacy of drugs in the treatment of disease has diminished. Perhaps, however, when the matter is looked into more closely it will be realized that it is not the use but the abuse of drugs that is on the wane. As is pointed out in a recent number of the *Prescriber*, it is a drug superstition a belief in the magic power of "something in a bottle," that is dying out and is being replaced by other superstitions, such as psychoanalysis. There are, indeed, a few drugs which are really specifics, or as nearly specifics as may be, such as mercury, arsphenamine and quinine, not to mention certain sera and antitoxins, while there are not many who will deny the value of morphine in acute pain. Also when may a substance be differentiated as a drug? For example, sodium chloride is an article of diet in the first place, and is also used with good effect as an intravenous injection and in other therapeutic ways. In both cases its action is, to all intents and purposes, identical. Again, certain mineral salts and organic acids are contained in fruits. When fruits are not available these salts and acids are employed as drugs, so that in many instances the line of demarcation between drugs and foods is difficult almost impossible to draw. Drugs are not out of date, but, on the whole, are more efficient than ever. What is required to place drug therapy on a sound basis is to reorganize the entire system, to weed out those that are useless and sometimes even dangerous, to improve and perfect those which have proved themselves of true value. Drugs also to exert their best effects must be prescribed with more or less exact knowledge of their action and especially must be furnished with discretion. It is sometimes the fault of the physician that drug therapy fails.—*Medical Record.*

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Iodine Sterilization of Wounds

Tincture of iodine, according to Eynard (*Presse Médicale*), does not reach further than the superficial layers of an infected wound. He advises, therefore, the preliminary use of petrol as a cleanser for the deeper parts of the wound, as well as for the operator's hands. As this is irritating to an angry surface, the following ointment may be used as a soothing application:—

R	Resorcini - - - -	10.0 gm.	3iii.
	Zinci oxidi - - - -	10.0 gm.	3iii.
	Paraff. moll. - - - -	100.0 gm.	3iv.

—*The Prescriber.*

Studies in Exhaustion. II. Arch. Surg.

By G. W. Crile.

Crile studied the Purkinje cells in the brains of foxes after different lengths of chase and made differential counts of these cells in dogs after fights and other forms of muscular exertion. He studied also the effects of anger combined with exertion on dogs and cats, and of continuous exertion (forced swimming) on rats. In addition, he compared the brains, livers, and suprarenals of salmon caught at the mouth of the Columbia river with those caught at the headwaters of the river after they had had an exhausting 700-mile swim without food. The effect of exertion on the electric fish was studied by means of the galvanometer. In order to determine the effect of exertion on the chemical contents of certain organs and tissues, he analyzed various glands and tissues from eight normal cats which had struggled against restraint for four hours. The conclusions drawn are as follows:

1. Extreme physical exertion in various land animals and in fish causes demonstrable histologic changes in the central nervous system, the liver, and the suprarenals. These changes, which are least marked in the liver, are identical in character with those already recognized as due to prolonged insomnia.

2. The discharge of the electric mechanism in the electric fish causes histologic lesions in the brain, the liver, and the suprarenals.

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3. Chemical studies made after animals had been subjected to extreme exertion show an increased iodine content of the thyroid, a slightly increased glycogen content in the liver a diminished glycogen content in the muscles, a greatly diminished epinephrin content, and a diminished epinephrin activity.

4. The hydrogenion concentration of the blood and urine is increased by extreme exertion.

5. The clinical effects of exertion as immediately manifested in increased temperature, pulse, and respiration, and later in acute or chronic exhaustion, are self-evident.—*Surgery, Gynecology and Obstetrics.*

Miscellaneous

A Definite Indication

Cough unaccompanied by expectoration is a frequent cause of aggravation and extension of the inflamatory process in bronchitis. In the dry, congested stage, treatment should aim to increase the mucous secretion, and, until a free secretion is established, to soothe the mucous membrane and prevent the harmful unproductive paroxysms of cough.

An ideal combination for this purpose is Syrup Cocillana Compound, P. D. & Co. This is an ethical preparation. Its gold color is rather unusual for a cough syrup; and the peach flavor and aroma are particularly agreeable.

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The Canadian Practitioner

Vol. XLVII TORONTO, FEBRUARY 1, 1922. No. 2

Original Communications

Detoxicated Vaccines

By W. Magner, M.D., D.P.H.
Pathologist to St. Michael's Hospital, Toronto

I propose to-night, firstly, to review briefly the present state of our knowledge of the mode of action of the ordinary bacterial vaccine; secondly, to examine Thomson's method of detoxicating bacteria and the results obtained with such modified antigens.

Mode of Action of the Ordinary Bacterial Vaccine

The vaccine almost exclusively employed up to date is simply a suspension of a bacterium, or bacteria, in normal saline solution, sterilized either by heat or by the addition of a weak concentration of carbolic acid and standardized so as to contain a definite number of organisms per cubic centimetre. In such a vaccine, unless the heating has been sufficiently prolonged to destroy all proteolytic enzymes, the bacteria undergo a slow process of autolysis and the composition and mode of action of an old vaccine may differ considerably from that of one freshly prepared. When a dose of freshly prepared vaccine is introduced into the sub-cutaneous tissues the contained organisms are attacked and broken down, just as would be the case with foreign protein particles of any kind. This attack

(Read before the Section of Pathology of the Academy of Medicine, Toronto, Sept. 25th, 1921.)

upon the injected microbes is at first sluggish, as the intact organisms are not active irritants, but as a result of the lysis of the bacterial protoplasm toxic substances are liberated which induce a distinct inflammatory reaction. The vessels dilate, plasma and leucocytes accumulate and we have the distinctly inflamed swollen and tender focus which constitutes the "local reaction."

The liberated toxic substances may to a limited extent be neutralized or destroyed locally but the greater portion is absorbed and, being diffused in the blood stream, exerts its action on the tissues throughout the body. If an excessive number of bacteria has been injected this action may be very obvious. The patient shows a severe local reaction, an elevation of temperature, rapid pulse, headache, lassitude and perhaps vomiting plus an aggravation of the local symptoms for which he is being treated.

With regard to this reaction a most interesting and important point is the nature of the bacterial substance or substances by which it is initiated. Are these simply products of the disintegration of the bacterial protoplasm or are they specific preformed toxins liberated from the bodies of the organisms during their destruction?

Possibly both play a part. A specific endo-toxin being responsible for the toxicity of the vaccine, for the various symptoms of the negative phase; whereas the beneficial tissue reaction, the development of the specific bacteriolytic powers of the serum, is due to stimulation by bacterial cleavage products.

This view is certainly upheld by the fact that the immunity acquired either as a result of an actual infection or a series of inoculations, is associated with a very definite increase in the bactericidal powers of the serum, whereas it is impossible to demonstrate any increase in anti-toxic properties and as a result such anti-sera are very unsatisfactory in the treatment of disease.

The presence of a specific disease producing endo-toxin, in the case of the majority of the pathogenic organisms, is widely accepted and various attempts have been made to extract it and by inoculations into animals to prepare an anti-endotoxic serum All such attempts have failed and the generally accepted view may be summarized as being—that endo-toxins do exist, that they differ fundamentally from the exo-toxins

secreted by the bacilli of diphtheria, tetanus and botulism and that is impossible to stimulate the production of a powerful anti-endotoxin.

We should be very unwilling to accept this latter clause as if it is true, if the disease symptoms produced by this large class of organisms is due to a toxin to which the tissues are unable to react, we cannot hope for any very distinct advance in the serum therapy of acute infections.

Ther is a distinct possibility however, that the endo-toxins are not specific preformed substances, but merely poisonous products of bacterial disentegration, and that by elaborating methods of isolating such cleaveage products and employing them as antigens, we may hope for anti-sera somewhat comparable in potency with those we possess for the treatment of diphtheria and tetanus.

Thomson accepts the view that an anti-endotoxin cannot be produced and suggests that this may be explained by the fact that the endo-toxin, however formed, consists of very simple protein molecules differing from the complex structure of all other protein bodies which are known to act as antigens.

Whatever be the nature of the endo-toxins and the substances responsible for the specific tissue reaction, the sequence of events in an ideal case is —a mild local reaction after each injection and an increasing bactericidal power of the body fluids leading eventually to cure of the local condition and a persistent high grade of immunity.

While admitting that such ideal results cannot always be obtained even in selected cases, it is certain that their number should be very much greater than it is, that failure is often to be attributed to some fault in the vaccine or its unintelligent administration.

The first essential is to determine the type of the case in which vaccines may be employed with reasonable hope of success Theoretically any localized infection in which toxic absorption is not excessive, or simple bacteraemia in which there is no acttual multiplication of bacteria in blood stream, comes into this category.

In true septicaemias, vaccines are contraindicated. The whole object of vaccine therapy is to exploit the healthy tissues for the benefit of the diseased and if there are no healthy tissues, if the whole body is saturated or supersaturated with

bacterial extractives, the introduction of a further dose of such substances can serve no useful purpose and may dangerously depress the patient's resisting powers.

To obtain the best results certain guiding principles must be followed in all cases.

Firstly, the vaccine must be autogenous to ensure that the patient is being immunized against the same serological strain of the organism as is responsible for the infection.

Secondly, and obviously, the vaccine must contain the organism or organisms responsible for the disease and not merely accidental inhabitants of the infected focus.

Thirdly, realizing that our object in administering the vaccine is to increase the antibody content of the patient's serum, we should endeavour to bring these antibodies to bear upon the infected focus in maximum quantities.

In localized infections of vascular tissues, where the invading bacteria are freely exposed to the action of the blood and lymph, vaccine treatment will bring about a cure in a large majority of all cases. The outlook is less favorable when the organisms lie in comparatively avascular tissues or in cavities where they are more or less protected from the action of bacteriolytic substances in the body fluids. Good examples of such cases are infections of the superficial layers of the skin, as in acne, and chronic inflammation of the urethra as in gleet. In the latter case the gonococci or, possibly these having been destroyed, secondarily invading bacteria, lie between the cells and in the depths of the glands which may be surrounded by a considerable formation of scar tissue. Cases of this type are among the most troublesome to deal with and call for intensive vaccine treatment together with a vigorous application of such methods as massage and hot fomentations with the object of inducing hyperæmia and aiding in the elimination of the bacteria.

Fourthly, the vaccine must not replace other methods of treatment but should be regarded as an adjunct to measure indicated by ordinary medical or surgical practice.

Fifthly, the immunizing process should not be unduly prolonged. Each dose should be sufficiently large to produce at least a distinct local and preferably a mild general reaction, and the intervals between the injections should not be any longer than is necessary for a complete disappearance of the reaction due to the previous dose.

In spite of attention to these principles, failures are encountered and these failures fall into one of two groups.

Firstly, those which from the outset of the treatment fail to respond in spite of repeated bacteriological examinations to ensure that the fault does not lie with the vaccine and progressively increasing doses.

There is a distinct possibility that Thomson's vaccine may prove a satisfactory remedy in these cases. It is almost certain that failure to react is due to a sluggish attack upon the injected microbes so that antigens are slowly liberated over a long period of time and are never in sufficient concentration to stimulate the formation of antisubstances.

In Thomson's vaccine the bacteria are "predigested" or split in their component parts such as may be rapidly absorb and produce the desired tissue reaction.

The second group comprises cases which show a distinct improvement during the early stages of the treatment but in which a stationary period is soon reached short of complete cure. During this stage regardless of the size of the injected dose, the local reaction is either very slight or even completely absent.

There are several possible explanations of this stationary period. Firstly, the complication of the infection by the invasion of the infected tissues by an organism not represented in the original vaccine. Secondly, deterioration of the vaccine owing to autolysis of the bacteria into their terminal non-antigenic constituents.

(In either of these cases re-examination of the infected focus and the preparation of a fresh vaccine will provide the solution.)

Thirdly, the absence of a local reaction during this stage suggests the possibility of the tissues becoming tolerant of the injected bacteria. Under such circumstances these are not actively broken down and the antigenic stimulus, necessary for the production of anti-bodies, is absent.

If this be the true explanation the indication, as in the first group, is the administration of the above mentioned modified vaccine which simplifies or renders unnecessary the primary disintegration of the bacteria by the tissues.

Thomson's Detoxicated Vaccines

While working with the gonococcus in 1917 Thompson (Ref. 1) discovered that it was readily soluble in dilute alkalies —that if such a solution was neutralised it constituted a satisfactory antigen in the complement fixation test—that acidification of solution produced a heavy precipitate and that this precipitate, suspended in saline solution, was also antigenic.

He then conceived the idea of testing the therapeutic value of the precipitate and found it to be less toxic than the untreated organisms and a more active therapeutic agent, owing he thought, to the relatively large doses which could be injected.

In order to test accurately the relative value of the ordinary gonococcal vaccine and this comparatively non-toxic precipitate he made use of the complement fixation reaction and his results showed that patients treated with the precipitate developed a far higher grade of immunity as shown by the greater number of M. H. D.'s. of complement, which his serum could fix.

Briefly his results showed that—

(1) A patient not receiving vaccine treatment developed three units of immunity during the course of the disease.

(2) A patient treated with ordinary gonococcal vaccine in doses of 5-200M. developed five units of immunity.

(3) A patient treated with the non-toxic precipitate in doses corresponding to 2500-10,000M. organisms developed 8-12 units of immunity.

Further, injection of the comparatively large doses of the precipitate into normal subjects caused their serum to give a positive reaction whereas the necessarily small doses of the ordinary vaccine had no such effect.

Having satisfied himself that the precipitate, obtained by acidication of the alkaline solution was non-toxic, he naturally concluded that the toxic constituents would be found in the acid supernatant fluid and proved the truth of this conclusion by showing that if this acid fluid be neutralized and injected subcutaneously it produced a severe local reaction and in a gonorrhoel patient, an increased severity of the local symptoms.

His original vaccine consisted simply of the precipitate deposited from the alkaline solution, suspended in saline solution. Later he isolated various other protein substances from the supernatant fluid and claims that the vaccine, as

now prepared, contains all the protein antigenic constituents of the bacteria whereas the endo-toxic substances are discarded with the supernatant fluids.

Briefly his method, which he has applied to a large number of bacteria other than the gonococcus, is as follows:

Stage I

Isolation of soluble substance.

A mass of the organism consisting of 5-10cc. of moist semi-solid material is treated with an equal volume of N/1 Na OH, or anti-formin in the case of less readily soluble organisms. The mixture is placed in the incubator for about three hours and then filtered.

The filtrate is clear and yellow and contains the alkaline soluble constituent of the germs.

Stage II

The alkaline insoluble material is washed off the filter paper with N/1 HCL and after thorough mixing is allowed to stand in the incubator for a few hours and then filtered.

The filtrate contains the acid soluble constituent.

Stage III

The material on the filter paper is washed off with solute alcohol and after a few hours in the incubator is filtered. The filtrate contains the alcohol soluble constituent.

Stage IV

The material left on the filter paper is washed off with chloroform, placed in the incubator as before and again filtered.

This filtrate contains the chloroform soluble constituent.

Stage V

Precipitation of these four components from their respective solutions.

The alkali soluble fraction is precipitated by adding N/1 HCL to number one filtrate until precipitation begins and then continuing drop by drop until the maximum amount of precipitation has occurred. (It is possible to add too much acid as the precipitate sometimes tends to be soluble in excess). The tube is now centrifuged at high speed, the supernatant fluid separated from the deposit and both preserved.

The acid soluble fraction is obtained by adding N/1 Na OH to number two filtrate. The light flocculent precipitate which is produced is centrifuged off and both it and supernatant fluid preserved.

The alcohol soluble portion is precipitated by adding twice its volume of N/1 saline solution to number three filtrate. The tube is then allowed to stand for two or three days until the fine precipitate flocculates into larger masses. When this has occurred the fluid is filtered and the precipitate washed off the filter paper with saline solution.

The chloroform soluble material is collected by concentrating number four filtrate by evaporation in a drying oven and adding excess of absolute alcohol. The tube is then centrifuged and the deposit collected.

The supernatant fluids obtained after precipitation of the alkali and acid soluble fractions are brought to a neutral reaction and twice the volume of absolute alcohol added. A precipitate separates out and can be driven down by the centrifuge. It consists of proteoses.

These five different precipitates are collected in a graduated centrifuge tube and centrifuged at 3,000 revolutions per minute for two minutes, after which the total bulk is estimated.

(Thomson has calculated that one c.cm of semi solid wet gonococci, centrifuged at 3,000 revolutions for two minutes, contains about 1,250,000,000,000 million cocci. He therefore, with the aid of glass beads, emulsifies this amount in 125 c.cm of normal saline solution. Each c.cm therefore contains approximately 10,000,000 million organisms, this being the strength to which he standardizes his vaccine).

It appears that all bacteria contain the alkali, acid, and alcohol soluble fractions, though in varying amounts. The chloroform soluble constituent is most abundant in the case of the Tubercle Bacillus, scanty or absent in the case of other germs.

A vaccine thus prepared is said to consist largely of non-toxic metaproteins and proteoses. The toxic supernatant fluids contain peptones, amino-acids, salts, fatty acids etc.

Discussion

Vaughan appears to have been the first to devise a method of splitting bacterial proteins into a toxic and a non-toxic portion. This he accomplished by extracting the bacteria with alcohol and ether, grinding the extracted mass into a fine powder and then boiling with absolute alcohol and sodium hydroxide. After an hour's boiling the alcohol was filtered off and was found to contain a large amount of the poison

whereas the residue was non-toxic. As a result of inoculation experiments he concluded, that the toxic material was non-antigenic while definite immunity was obtained, as the result of injection of the non-toxic powder.

Vaughan's work, however, was directed mainly towards the nature of the toxin and the production of anaphylaxis, whereas, Thomson has investigated the antigenic value of the non-toxic components. Also Vaughan's process, necessitating prolonged boiling, would probably to a large extent destroy the antigenic value of his "detoxicated" powder.

With regard to Thomson's vaccine; in the first place his claim that his solution of the gonococcus, when neutralised, constituted a satisfactory antigen for the Complement Fixation Test has been confirmed by several, including the writer. (Ref. 2) In a series of cases examined simultaneously with Thomson's and another widely employed antigen the superiority of the former was manifest, it being both more sensitive and less anti-complementary.

Secondly his assertion that the detoxicated vaccine is superior to the usual type in the treatment of gonorrhœa is supported by Dixon and Priestly and by Corbett and Osmond. (Ref. 3 & 4).

(In a very limited number of cases in which they were employed by the writer, detoxicated vaccines were found satisfactory, both in the treatment of Acute Gonorrhœa and as prophylactic agents for Coryza).

Thirdly that the vaccine is less toxic than the ordinary bacterial suspension is shown by the relatively enormous doses which may be given without producing a general reaction.

Thomson considers that in this lies the chief value of his vaccine, arguing that large doses of an antigen must produce a higher grade of immunity than smaller ones.

On the face of it this appears a reasonable contention but as indicated previously there is another factor which may play a part and that is the fact that the bacteria are injected in a predigested condition so that lysis by the tissues is simplified or perhaps rendered unnecessary. If we believe that many failures in vaccine therapy are due to the absence of this lytic action, the superiority of a vaccine in which the organisms are artificially disintegrated, without any loss of antigenic properties, is obvious.

Summary and Conclusion

There are certain facts and also certain theoretical considerations which justify an extensive trial of Thomson's modified vaccine.

The facts are:—

(a) That by this process a vaccine has been prepared which can be given in very much larger doses than the usual type.

(b) That both serological and clinical tests tend to show that the process of solution and precipitation does not destroy the antigenic value of the vaccine.

The theoretical considerations are:—

(a) That inoculation of such large quantities of germ substances ought to produce a high grade of immunity.

(b) That by employing the vaccine we, to a certain extent at any rate, relieve the tissues of the preliminary disintegration of the bacteria, which is necessary for the liberation of antigens and that therefore it ought to provide the remedy in cases which fail to react to vaccine of the older type.

Ref. 1—Thomson, D. "Researches in the Biochemistry of Germs and other Protens."—*The Lancet,* April 16, 1921.

Ref. 2—Magner, W. "The Complement Fixation Test in Gonorrhoea."—*The Lancet,* 1920, ii, p. 123.

Ref. 3—Dixon, H. B. F. & Priestly, A. H. "Complement Fixation Test in Gonorrhoea Infections."—*The Lancet,* 1919, i i, p.964.

Ref. 4—Corbett, W. V. & Osmond, T. E. "Treatment of Gonorrhoea with detoxicated vaccine."—*The Lancet,* 1920, i i, p. 346.

Curietherapy (Radiumtherapy) in Vulvar Vegetations During Pregnancy

By Dr. P. Degrais, Paris.

As the action of radium on warts, papillomata, and other similar cellular developments, has been most successful, we thought, with Wickham, that, following the results of our investigations, it might be wise to have recourse to Curietherapy for vulvar vegetations during pregnancy.

In the first edition of our volume on Radiumtherapy (1909) we showed that large vulvar growths had broken down under the action of radium, and since then, with our friend and collaborator, Anselme Bellot, other results have arisen to confirm our first opinion. This treatment was to have been the subject of a paper at the Gynæcological Congress in Lyons in 1914.

As this was not possible, owing to the tragic events of that year, we thought it would be of interest, by virtue of the constancy of our cures, to take this question up again and to present to the gynæcologists and obstetricians a method of treatment which is quite harmless to the progress of pregnancy, and, nevertheless, little known.

Certainly vulvar vegetations are of common occurrence; but it is none the less true that they produce a malodorous oozing which often produces pruritis and erythyma, and which render asepsis more difficult in the genital region at the time of confinement.

While, according to MM. Ribemont, Dessaigne, and Lepage, it is dangerous or at least useless to resort to surgical treatment (scraping, excision, cauterization) during pregnancy, M. Porax, on the other hand, is in favor of operating on pregnant women with advanced growths; applications of radium, however, could meet with nothing but approbation as they are absolutely painless, and are not followed by any troublesome reaction, literally cause these growths to break down, and thus render the genital region aseptic for the time of delivery.

Technique:

The method of treatment differs according as the affected areas are vulvar or vaginal.

*Read at the 2nd Congress of the Association of Gynæcologists and Obstetricians of France, September and October, 1921.

Vulvar Vegetations:

In these conditions we use flat, glazed applicators. To many these applicators may have nothing but a pre-historic interest, but nevertheless, they are indispensable in the equipment of the Curietherapist, although many doctors consider that the only radium treatment of value is obtained from the use of tubes, and, especially, of needles. Certainly the handling of flat applicators requires much skill, for, in them, the radium is naked and one gets the benefit of all the rays without the constant screen which is present in the casing of tubes and needles. For this screen absorbs much of the radium rays, about 3.2% of the beta rays which are considered useless, if not dangerous, because of their causticity. But this is not true any more of beta rays than of gamma rays. The greater number of the former and their weaker penetration are such that an error in dosage results in superficial phenomena, which bring discredit to the rays, while the fault really lies in the fact that the dose has been wrongly apportioned. It is for this reason that we emphasize the fact that the use of beta rays requires more skill and more experience than the use of gamma rays. The whole thing is a question of the dose, time of exposure, and also the inherent sensitiveness of tissues which differs widely in different regions.

Those arguments which urge disfavor of the practicability of the use of glazed applicators are not in any way sufficient to cause their discontinuance.

Every radiumtherapist should know how to make use of the radium rays which are most suited to the cellular modifications of the tissues in question.

As a matter of fact, it has been found that morbid growths of the skin disappear rapidly under extensive surface raying which has been shown to be the best treatment for vulvar vegetations.

In these conditions we use applicators 4 cm. square containing 10 mg. of radium bromide, and they are left in position for ¾ hour to 1 hour according to the depth of the growths. The applicator is covered with a thin sheet of "English leaf," for the purpose of protection.

In the case of vegetations with a large base, or if a caustic treatment has been used which has produced slight cicatricial tissue, we prefer to make use of a thin filter; thanks to this, without fear of a reaction, we can prolong the application and allow the rays to act for a longer period on the deeper areas of the skin.

The same applicators as the above are used with a screen of 0.1 mm. of lead " English leaf " of 0.1 mm. thickness. The time of application varies from three to five hours, according to the depth of the growths.

The areas of healthy skin between the growths are protected with lead 0.5 mm. thickness, while the growths can be covered with the apparatus described above.

Vaginal growths:

As it is difficult to use glazed applicators in this location we use, though somewhat reluctantly, radium tubes containing 25 milligrams of radium bromide.

We prefer tubes which have a casing of 0.3 mm. of platinum, surrounded by a covering of gauze; we give an 8-hours' application in one or two treatments.

Following these treatments, disintegration of the vegetation is effected without any reaction and three or four weeks after the conclusion of the applications the genital region has resumed a normal appearance, and the disturbances incident to the growths have disappeared with them.

We are, therefore, in possession of a method which is able to bring about the disappearance of a condition which is apt, in its consequences, to cause trouble in the course of pregnancy and delivery, without bringing with it any danger in any way to the nervous equilibrium which is in a precarious condition in the pregnant woman.

For these reasons it seems to us that Curietherapy of malignant growths of the vulva should be more widely used; the object of this paper is to strongly advocate such treatment.

Acute and Sub-Acute Liver Atrophy

By James Miller, M.D., Professor of Pathology,
Queen's University.

The liver is the busiest gland in the body as well as the largest. It is the greatest seat of chemical activity and of heat formation outside the muscles. It has many and various functions concerned with the metabolism of fats and carbohydrates, the formation of blood protein, the destruction of blood the formation of bile and the elimination of poisons. It has a very copious blood supply from two sources, nearly two thirds coming from the portal vein and about one third from the hepatic artery as has been demonstrated by McLeod, a small quantity being derived from capsular vessels. Placed as it is on the course of the blood from the alimentary canal it has to bear the brunt of any poison taken in by that channel. Thus it undergoes a pronounced fatty degeneration in phosphorous poisoning. Other poisons, such as chloroform, reach it by way of the blood and affect it similarly. Another degenerative change, the origin of which has hitherto been shrouded by mystery, is Acute Yellow Atrophy. This condition was at one time considered as a very rare disease, the total number of cases described up to 1903 being stated by Best to be 500. We now know that the disease is by no means so infrequent as was at one time supposed. This is partly due to the inclusion under the same category of subacute and chronic stages not previously recognized. It is partly the result of an increased number of acute cases, owing to the use of chemicals either in the manufacture of explosives (e.g. trinitrotoluol) or in the treatment of disease (such as organic arsenic preparations) which may profoundly affect the liver. In addition, a number of German authorities attach importance to catarrhal conditions of the internal tract set up by war feeding spreading up the bile channels and so involving the liver. Whatever be the cause of the increase there is no doubt about it and it has led to additional knowledge as to the nature of the process and the stages through which it passes. Three of these have been distinguished (1) the acute atrophic (2) the sub-acute atrophic (3) the regenerative. A case may die at any of these stages or it may pass through them all and die of an intercurrent infection long after the liver condition has become quiescent.

1. Acute Atrophy of the Liver. This is a better term than the older one Acute Yellow Atrophy because the liver is by no means always yellow. In most cases it shows a mixture of red and yellow areas, the red representing a somewhat later stage. The organ is reduced in size, its capsule wrinkled and its consistence soft. Microscopically there is found in the yellow areas degenerated and necrotic liver cells. In the red areas these have almost entirely disappeared and nothing remains but endothelial cells with fatty and granular debris amongst which are red blood cells. The early regenerative and inflammatory appearances are often seen in these red areas but as they are more characteristic of the later sub-acute stage they are described below.

2. Sub-acute Atrophy of the Liver. The liver is reduced in size, as before, with wrinkled capsule. Red and yellow areas are often present together but the red predominate. In the later stages the whole organ has a brown or greyish brown appearance. Microscopically the liver lobules although still visible have collapsed; little being left but the fibrous stroma which has contracted. Red blood cells are present in the capillaries and infiltrating the stroma. In the later stages these have to a large extent disappeared, their places being taken by yellow and brown pigment granules which are often inside the endothelial phagocytes. Evidence of inflammatory reaction is present in an infiltration of the portal tracts with round, sometimes with eosinophile cells and the commencement of a fibrous change is seen extending from these tracts into the surrounding liver tissue. In addition, evidence of proliferation of small bile ducts is to be seen in the portal tracts. This is the first indication of regeneration of liver substance but it is questionable whether it results in the formation of liver cells. It is, however, a preparation for the subsequent formation of liver parenchyma which links up with the proliferated bile ducts and so reestablishes function. At this stage the liver cells which have escaped destruction show evidence of activity, swelling up and regaining their normal contour and staining reaction. Sometimes nodules of regenerated liver tissue are to be seen but this is more a feature of the next stage.

3. Multiple Nodular Hyperplasia. In this stage the liver shows, as regards naked eye appearance, a more or less close approximation to what is seen in cirrhosis. The basis is the same grey, atrophied, now fibrous, organ; but scattered through this and pushing aside the original atrophied tissue are num-

bers of rounded nodules varying in size and appearance. These are areas of regenerated liver tissue. The question at once suggests itself, why not, if the resemblance to cirrhosis be so close, call the condition cirrhosis and be done with it. Well, in the first place, the term cirrhosis is not a good one. It was applied originally by Laennec, the inventor of the stethoscope; but it was applied under a misconception. Laennec imagined that the yellow nodules of the cirrhotic liver represented new material brought from elsewhere and deposited in the organ. The term is derived from the Greek word *kirros* meaning tawny yellow and has nothing to do with fibrous changes which is the essential underlying pathological process. Now, I am prepared to admit that this term is so ingrained in medical nomenclature that it is impossible to get rid of it. But that is no reason why we should introduce it to characterise a condition recently recognized which has as its fundamental change regeneration following atrophy. The term "multiple nodular hyperlasia" has been in use for some time past in Germany and Japan. So far as I can ascertain Johannes Orth was the originator of it. It is descriptive and could scarcely be improved upon.

These nodules of regeneration are then the feature of this stage of disease. They may be small or large, few or many according to the duration of the regenerative stage. They are often yellow turning green in colour on exposure to the air due to the contained bile; or they may be yellow from fatty change like the cirrhosis nodules.

Microscopically the nodules only differ from normal liver tissue in showing no tendency to lobular arrangement. Many of the liver cells are large and multinucleated, indicating active cell division. Clots of bile are often to be seen between the liver cells, representing the secretion of the newly formed liver tissue which has found no outlet. The intervening fibrous stroma, representing the old atrophied liver, shows numerous bile ducts and round cells and differs from that seen in cirrhosis only in its cellular character and in the relative absence of elastic tissue as pointed out by Lindsay Milne.

What claim can we put forward that the above represents a series of types or stages through which an atrophied liver may pass? In the first place, in quite a considerable number of cases now diagnostic operative procedures have revealed the liver at one stage and post-mortem examination has shown it

at another. Then again, in the more chronic cases, a history of one or more severe attacks of jaundice may be attained, indicating a preceding stage of atrophy.

Symptoms.

The symptoms of the acute and sub-acute stages may be taken together as they are very much the same, merely differing in their duration. Very often these cases, especially the more acute ones, come under observation only in a moribund condition. Some show a preliminary gastric catarrh. Then jaundice supervenes and becomes more and more intense. Herxheimer has shown that the actual duration of these cases is much longer than is usually allowed as they are ailing for days before the jaundice develops. Headache and vomiting are usually marked features. Trembling of the muscles, sometimes convulsions and eventually delirium are characteristic. Hæmorrhages may occur into skin and mucous membranes and hæmorrhagic vomiting may be a feature. There may be pyrexia and the pulse is usually rapid. The liver dullness is noted to be progressively diminishing. Bile salts and pigment appear in the urine and uric acid and other purines are often somewhat increased probably due to destruction of nuclear material in the liver. The total elimination of nitrogen is increased but the proportion which appears as urea is diminished, the remainder being excreted as ammonia combined with organic acids. The blood shows decreased coagulability due to the relative absence of fibrinogen which with the globulin is produced in much reduced amounts owing to the destruction of the liver parenchyma. There is increase in the lipase of the blood. Leucine and tyrosin, products of protein digestion, appear free in liver, blood and urine and may be recognized as characteristic crystals in the last. Cellular casts are also usually present in the urine as in most cases of severe jaundice. The stools are usually clay coloured.

Here is a typical history of an acute case recently observed in Edinburgh Royal Infimary:

V.W., aet. 23. Admitted to venereal ward June 26th, 1918, with a history of exposure to infection five weeks before the sore appeared. On admission there were mucous patches, ulceration of fauces and tonsils, enlarged glands and a maculo papular rash of a scaly, dry character. He received five injections during his stay in hospital—of neokharsivan one, galyl one, and kharsivan three. He was discharged on July 12th, 1919. He was re-admitted on August 31st, sent in as a case

of nephritis. He was of a Swedish nationality and had been employed in a lumber camp near Jedburgh. The only history obtained was that he had been ill for some weeks. He could not speak English and was in any case too ill to give a history. During the afternoon of August 31st the catheter was passed and 40 oz. of urine withdrawn. It contained bile but no albumin. There was moderate jaundice. He was rather violently delirous and required restraint. In the evening he began vomiting blood and mucus. The temperature was subnormal but next day it rose to 100.4°, Pulse 80-112. On September 1st he vomited coffee-coloured material several times. He was very noisy all night and did not sleep. In the course of the day he became comatose and passed urine in bed. Stomach on being washed out yielded a large quantity of blood clot. He died at 1.20 a.m., September 2nd.

This is a case in which syphilis was present and in which the liver atrophy followed the intravenous administration of an arsenical compound. The liver cells had almost completely disappeared; those remaining showed a fair amount of fatty change. There was little evidence of reaction except in an infiltration of the portal tracts with small round cells. Bile duct proliferation was notably absent.

The cases of Multiple Nodular Hyperplasia show very varied symptoms. Such cases are often not recognized at all or they may be mistaken for cirrhosis or Banti's disease. Their differentiation from cirrhosis is a matter of age and history. I am inclined to doubt whether there is such a thing as cirrhosis of the liver(i.e. a piecemeal destruction of liver substance with slow replacement by fibrous tissue) in the child. Most of the so-called cases are instances of multiple nodular regeneration. As regards the differential diagnosis between this condition and Banti's disease the main point is that in the latter anæmia, more or less severe, is always present and from the pathological point of view fibrosis of the spleen and changes in the portal veins are to be found.

Here is a short history from a case recently in Edinburgh Royal Infirmary,female aet. 23. No history of previous illnesses was obtainable. Present illness began with pain and swelling in the knees two months before death. Jaundice was present from the commencement. There was improvement for a time but eleven days before death pain in the right side developed, also vomiting and eventually delirium. The duration of the jaundice was two months. The changes in the

liver were those of an atrophy of the liver parenchyma with a moderate amount of regeneration of liver tissue. The nodules were small and were scattered in clusters through the liver substance. Bile duct canaliculi were numerous and hæmorrhage and congestion marked in the red areas.

In the small scattered abscesses there was evidence of a terminal infective process of an acute type.

The changes in the other organs were compatible with a sub-acute infective process of some duration with a terminal more acute one superadded.

In most of the chronic cases the spleen is enlarged and in many of them, but by no means all, ascites is a feature. In one case of the kind severe hæmatemesis occurred from a ruptured varicose œsophageal vein.

Causation.

Nothing very satisfactory can be said as regards causation. We know that certain poisons ingested or inhaled can produce necrosis of the liver tissue and may be followed by regeneration. Such poisons are trinitrotoluol (T.N.T.) used in the manufacture of munitions. Tetra-chlor-ethane employed in the aeroplane industry has, in some instances, proved a powerful liver poison, the harmful effect being caused by the inhalation of fumes. Willcox in 1915 reported cases of toxic jaundice arising in this way and in those which were fatal a small necrosed liver was found.

Then the injection of arsenical preparations intravenously in the treatment of syphilis have been followed by batches of cases which are indistinguishable in their appearances from idiopathic acute atrophy. Groups of cases of this kind have been reported by Stuart McDonald, Hunter, and several German authors. Of course, in these cases there is always the element of syphilis which can not be eliminated and Herxheimer holds that it is the syphilis and not the arsenical compound which causes the liver atrophy.

This brings us to the question of syphilis as an etiological factor. There is no getting over the fact that this disease plays an important part in so-called idiopathic liver atrophy. In a series of 16 liver atrophies recorded by Rutherford and myself definite evidence of syphilis was obtained in two, and in two others, points in the history suggested this as a factor. In a series of nine cases recorded by Herxheimer seven showed secondary syphilis.

As regards other factors, tuberculosis was present, either active or quiescent, in 10 out of my 16 cases and in most instances the disease was present in the mesenteric glands. Influenza, typhoid and paratyphoid fever, scarlet fever and dysentery were present as possible factors in the cases of this series.

The general tendency is to believe that in most instances more than one toxic or infective agent is necessary in order to produce acute necrosis of the liver. In a case recorded by me in 1908 the patient had scarlet fever seven years previously, acute rheumatism shortly after this, syphilis six months before death and influenza two months before death. Active pulmonary tuberculosis was also found at the post-mortem. It seems probable that this repeated attack on the integrity of the liver parenchyma leads to a condition of the liver cell in which it may readily fall a victim to its own digestive ferments and so undergoes extensive autolysis.

On the other hand, there are those such as Umber who consider that in many instances the condition is an inflammatory change from the alimentary tract, reaching the liver by the bile channels. In my series of cases there was little or no evidence of such an avenue of infection.

Lastly there are some such as Seyfarth who regard the condition as a specific infective one, probably a spirochætosis similar to Weil's disease. All one can say about this is that, up to the present, no spirochæte has been found and the changes in the liver are easily differentiated from those in epidemic jaundice.

The Canadian Practitioner

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We have to announce that additions to our staff have been made recently. The complete Editorial Staff is now as follows;

Adam H. Wright, B. A., M. D. — W. H. B. Aikins, M. D.
J. Ferguson, M. A., M. D. — E. E. King, M. D.
Samuel Johnston, M. A., M. D. — H. B. Anderson, M. D.

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Editorials

"Truly, I am Encumbered with Help"

On one occasion two gentlemen were assisting Dr. Samuel Johnson in the act of putting on his greatcoat. They were not succeeding very well, and the blunt old philosopher exclaimed, "Truly, I am encumbered with help." This seems to be the position of the University of Toronto in the matter of its medical faculty.

When Sir John and Lady Eaton decided to give $25,000 a year for a period of twenty years, it was stipulated that the money must be used for the benefit and promotion of the Department of Medicine. Another condition was that the University must spend as much on this department. This meant $50,000 a year must go to the Department of Medicine: and it also meant that the University had to find $25.000 of the amount. This is not a small sum for which to finance yearly during the long period of twenty years.

The University accepted the Eaton gift, and began looking for ways and means of finding its annual share of $25,000. The first and natural thought was to go to the Ontario Govern-

ment for an increase in the grants to the University, but the government could not see its way to go equal with Sir John Eaton. Then the University began to think out other ways of finding the money; and the one most easily applied was to cut off the small remuneration that was paid to the many clinical teachers in the Department of Medicine. Thus the Eaton gift had the effect of taking from these clinicians the slight remuneration paid them for much time spent in the hospitals with the students.

We contend that it was not an ideal action on Sir John Eaton's part to attach the condition to his gift that brought in its train this result. We further contend that it was a most unfair action on the part of the University to accept the gift until it had obtained the feeling of its many faithful clinicians, as to their willingness to forego this remuneration. There are other things in this world than money. One of the most powerful pictures that appeared during the Great War was that one in which the Kaiser was addressing the king of the Belgians ,and said, "You have lost everything," and the king of the Belgians proudly replied, "No, I have not lost my soul."

We have now disposed of one of those who undertook to help on Dr. Johnson's coat; let us say a few words about the other helper.

The Rockefeller Fund goes mainly to anatomy and surgery. The condition of the gift was that the University must supply an equivalent amount. The Government, as stated, refused to increase its grants to meet this condition, and, consequently, the University fell back upon the easy expedient of cutting off the remuneration from all the assistant and clinical teachers who stood in the pathway of the improvements aimed at by the Rockefeller Fund. Then all the associate professors and surgical clinicians and demonstrators are notified: "Your remunerations (called honoraria) are now discontinued." Truly the University might have added in the words of the apothecary in Romeo and Juliet: "It is not of my will, but of my necessity, I do this thing." Those who laid down the terms with the Rockefeller gift have made them obligatory and "necessity is the argument of tyrants and the creed of slaves."

But we must not forget the milk of human kindness in the hearts of the University Governors; for this is what the President, Sir Robert Falconer, states about them in his

letter of 19th October, 1921: "Indeed they (the Governors) wish to take this opportunity of thanking them (the clinicians) very sincerely for the devotion to their work so generously displayed in the past." The letter also states: "They (the Governors) hope that the members of the clinical staff will not regard it as in any sense due to lack of appreciation." This is what the clinicians receive as a substitute for "No Pay." Thus the University has to express itself in the words of Sebastian, "Thanks, and thanks, and ever thanks;" and further, "Please, all ye associates and clinicians, continue teaching for nothing in order that the *honoraria* formerly paid you may be used to make up such sums as shall partly go fifty-fifty with the Eaton and Rockefeller Funds."

The authorities did not take anything from those with large salaries, because this would have caused trouble; but they take all from the unorganized, who would not likely resist. It is a case of the old saying of Lord Dundreary coming true, namely, "the tail wagging the dog."

Antivivisection Again

A group of persons, whose sentiment beclouds their judgment, are urging that severe restrictions should be imposed to prevent the carrying on of highly useful experiments on animals.

Some of these people display their profound ignorance by stating that no advance in medical science has ever been made through experiments. To make such a statement is to reveal a degree of ignorance that is truly pitiable. Others contend that experiments on animals is a criminal offence according to the code of Canada. Still others hold that all such experiments are morally wrong.

Now, let us look at things as they are. A certain lady who calls herself an antivivisectionist goes down Yonge Street, Toronto, clad in a gorgeous mink coat. Did she ever stop to to think that these minks were caught in traps, and almost always by the legs; and that they might remain in the trap one or two days, suffering the severest pain. All this that our fair antivivisectionist might have a handsome fur coat.

Many a fine bonnet is beautifully ornate with feathers that are plucked from the living birds. But all this counts for nothing when it is a matter of securing the objects of personal desire.

There are some rats annoying a certain house. The occupant, and that, too, an antivivisectionist, puts out some rat poison containing phosphorus, which produces death in a most painful manner. Now, this painful death is caused just to prevent the rat eating a hole in some of the furniture. Here is extreme pain inflicted in order that no damage be done to the bottom of the sideboard. But these very people say that no pain must be inflicted on the lower animals though the object be the advancement of methods of treating disease and saving human life.

The present far advanced position of physiology, the very foundation of all medical science, is the result of long years of painstaking experimental research. Our knowledge of bacteria, of contagion, of immunity, of vaccines, sera, antitoxins, is almost entirely the outcome of the study of what took place in lower animals when brought under the test. What of it that a few horses, rabbits, and guinea pigs should be made the subjects of experiments, in order that diphtheria antitoxin be made perfect, which has saved millions of children's lives! Take that dread disease hydrophobia, and we have no hesitation in stating that if a most pronounced antivivisectionist were bitten by a rabid dog, he would hasten to the nearest Pasteur institute for treatment, notwithstanding that this treatment necessitates the keeping of a number of living dogs in the rabid condition, a most fearfully distressing one.

The fact is that the arguments of these people are founded on complete ignorance of the facts, and on a silly maudlin sentimentality. This is good evidence of their unfitness to guide, where calm reason is required. But it will not do to ignore these people. Never presume too much upon the judgment of legislators. They may be as ignorant of the true facts as are their would-be advisers. It is necessary, therefore, to be alert and active. The price of freedom is eternal vigilance. If these people interview the Government, this should be followed without delay by a proper statement of the case for experiments and experimental research.

Dr. Lorenz's Mission

Dr. Adolph Lorenz, the distinguished Austrian surgeon, visited the United States in November, and remained in New York for some weeks. He performed some operations and although his services were, in many instances, free, yet it

appears that in certain cases a fee of $100.00 was charged, to defray his expenses, as was stated. In New York State the educational board notified him that he must obtain a license. He applied for one, and we understand that he received something in the shape of a permit to do some casual practice.

It would be remembered that Dr. Lorenz visited the United States eighteen years ago for the express purpose of operating upon Miss Lalitta Armour, of Chicago, who was suffering from hip joint disease.

It is rather unfortunate that this eminent surgeon from Austria should have done anything bearing the appearance of a breach of ethics or law in the United States. However, we are in a position to state this—his last desire was to do anything illegal or offensive to the profession in the United States. He is a fine type of man, distinguished and highly respected in his own city, Vienna, and his own country, Austria.

Treatment of Workers

Thos. Findley, for some years the President and Manager of the Massey-Harris Company, who died December 19th at the age of 51, was one of the greatest and best of Toronto's manufacturing magnates. Without regard to his business ability we desire to make some reference to his humanity and singular aptness in his treatment of his employees.

We are told that, as General Manager, Mr. Findley's first move was one towards the reduction of working hours, followed shortly afterwards by an increase in pay. The dividends in increased efficiency, which the company commenced to reap as a consequence of this policy, carried him still further with his experiments, and free medical attention, old age pensions, and cafeterias and recreational facilities were inaugurated. He also organized a Workmen's Council to adjust grievances of employees within the plant, whilst an objective which death prevented from attaining was the solution of the problem of providing for the dependents of those employees who should die prematurely before they should have amassed a competence for their families.

His chief desire was to consider the comfort, welfare and health of his workers. He did his duty as an employer nobly and well, and it is satisfactory to note his Company lost nothing through his humane procedure, but actually gained from the increased efficiency which resulted.

News Items

Physician Authors

Another of the *New York Medical Journal's* interesting articles is that of October 19th, on Dr. Thomas English, a practising physician, an able but eccentric man, an author of several novels and plays, hundreds of poems, editorials, scientific treatises, etc.

He was in ways brilliant, but erratic, sometimes pugilistic. He and Edgar Allen Poe fought on the streets of New York because of a dispute over a woman. English was the victor. Poe then attacked English in an article published in *Godey's Lady's Book*. English replied in rather a venomous way in *The New Mirror*, as a result of which Poe sued the paper and got £225 damages.

He was born in Philadelphia in 1819 and graduated M.D., from the University of Pennsylvania in 1839. He also studied Law and was admitted to the Bar in 1842. Although he practised Medicine to some extent, he never was a success in either Medicine or Law; but he wrote almost constantly from 1839, when he was aged twenty, until near the time of his death in 1902, aged 84.

Although he had an enormous capacity for work and published mountains of literature of various sorts, only one of his products remains to-day in the public eye—*Ben Bolt*. And yet he, in his later years, referred to it as "one of my early indiscretions," published in the *New York Mirror* in 1843, when English was twenty-four. It soon became very popular, was recited and sung in all English-speaking countries. Some years later, when its popularity was waning, Du Maurier put it into *Trilby* and thus created a new boom for it. It is interesting to note that Dr. English was brilliant in parts, many of his greatest writings which appealed to men's brains are now forgotten, while an "early indiscretion" —a simple, little ballad—touches our hearts and will live for ever.

Headache Powders

Dr. Wynn, M.O.H., of Sheffield, England, says, according to the *Medical Press,* that all "headache powders" contain acetanilide, frequently in doses larger than those in the B.P. The drug has a powerful depressing effect on the heart, and, as we well know in Canada, often produces dangerous symptoms.

Bequest to College in Antigonish, N.S.

An estate of about one million dollars will go eventually to St. Francis Xavier College, Antigonish, N.S. The bulk of the estate is being left by Mr. Neil McNeil in trust to a Mr. Clarke for the benefit, during their lives, of sixteen nieces and nephews. At death, the income of each beneficiary is is to be paid to the College governors. When the last of the heirs is dead, the principal, with interest, is to be turned over to the institution.

McGill University

We are informed by the lay press that the standard for entrance to the McGill Medical Faculty will be raised next session. The requirement will be one year in Arts, or what is technically known as Senior Matriculation.

Grace Hospital, Windsor

An extensive wing will be added to Grace Hospital, Windsor, Ont, the corner stone being laid December 17th. The ceremonies were conducted by Mayor Wilson and Commissioner Chas. Sowton, head of the Salvation Army of Canada.

Ontario Medical Association

An advisory board has been appointed by the O.M.A. to confer with the Board of License Commissioners on matters pertaining to the Ontario Temperance Act. The board will consist of Dr. Frank Farley, Trenton, President; Dr. Geo. Young, and Dr. T. C. Routley, Secretary, of Toronto.

Medical Health in Hamilton

We are informed that a new health centre in Hamilton, established by the M.O.H., Dr. Roberts, is making excellent progress. Arrangements are being made to establish additional clinics for child and maternal welfare purposes.

Gorgas Memorial Institute

Of particularly deep interest to all members of the Medical Profession is the recent anouncement of the plans of the Board of Directors of the Gorgas Memorial for the establishment of a Memorial Institution in the City of Panama for research and the extension of means of prevention of tropical diseases. It is well known to members of the medical profession that the accomplishment of this great work and the sanitary regeneration of Panama are due to the efforts of the late William C. Gorgas, Surgeon-General of the United States Army, and to his efforts more than to any other, success for the work must be accredited. The honor for the conception of this idea and of bringing it into actual existence belongs to Dr. Belisario Porras, the President of the Republic of Panama, who, in the name of his government, has tendered the site, a building, and all equipment, valued in all at approximately $500,000.

The diseases which will be studied in addition to yellow fever and malaria, are dengue, pellagra, beriberi, leprosy, cholera, and the various mycoses. It is the consensus of opinion that tremendous advances can and will be made through the efforts of the research work in the field, and the humanitarian benefits to accrue from the establishment of this wonderful tribute to General Gorgas are almost beyond conception.

Correspondence

London Letter

(*From our own Correspondent.*)

London, December 6th, 1921.

Report on the Financial Situation of the Voluntary Hospitals of England and Wales, Excluding those of London

Sir Napier Burnett, Director of Hospital Services of the British Red Cross Society, has had published recently the report on the financial position of the voluntary hospitals. He points out that the four main sources from which hospital finances are fed are: (1) Proceeds of endownment. (2) Charitable contributions. (3) Organized workmen's contributions. (4) Patients' payments.

The voluntary hospitals are already receiving a large measure of support from the public, but much still remains to be obtained if the voluntary system is to survive its present difficulties. Hospitals with which medical schools are associated are necessarily involved in greater expenditure than those hospitals to which no medical schools are attached. It will come as a surprise to many that thirteen training hospitals are responsible for fifty per cent. of the total deficit of £448,061 incurred by the 107 large hospitals.

This seems to point to the possibility of obtaining financial assistance from the Government, not for the hospitals themselves, but in respect to the training work which is done in them. If the voluntary hospitals did not exist and could not be used for this purpose, the State itself would have to create hospitals and maintain them at a large expense.

So far as workmen's contributions are concerned, this source of income as yet is not important. As for patients' payments, at the present time, perhaps, in the case of the cottage hospitals, this means of procuring money is almost a negligible quantity. The large hospitals derive an exceedingly small percentage of ordinary income from this source.

The report alludes in somewhat scathing terms to the meagre £39,000 received by provincial hospitals for services rendered to patients under the National Health Act. Sir Napier Burnett contends that if business-like methods were

introduced into the conduct of the provincial hospitals of England and Wales that a long step will have been taken in the direction of placing them in a satisfactory financial position.

The Situation of the London Hospitals.—The London hospitals are in a worse state than the provincial hospitals of this country. It is estimated that the aggregate deficit on the maintenance account for the year ending December 31st, 1921, will amount to, at least, £360,000. All the larger general hospitals, including all the medical schools, will show heavy deficits. Moreover, a number of London hospitals have now exhausted all their realizable assets, and without prompt and adequate assistance will have no alternative but to close wards. It is a condition of the Government grant of £500,000, which has to meet the needs not only of London but of the whole of Great Britain, that a corresponding amount must be raised by the hospitals themselves.

Post-graduate Medical Training in London.—A draft copy of the syllabus of the intensive post-graduate course which will commence on January 9th, 1922, has been issued. The syllabus has been arranged to extend to six weeks, terminating on February 18th. The hours of work are from ten to four on each day with a short interval between. The subjects of the course will be Diseases of the Chest, Pathology, Fevers, Diseases of the Heart, Gynæcology, Infant Welfare, Lunacy, Cancer, Diseases of the Eye, Diseases of the Skin, of the Rectum, and of Children. The fee for the whole course has been fixed at fifteen guineas. Another point in the organization of this new scheme is that it stabilizes a course of instruction which will be in operation for a period of six weeks. The advantage of this is obvious. Instead of a post-graduate being required to draw up a programme of work for himself, he is now provided with one regularly arranged, and from the variety of subjects included, adapted to meet all ordinary requirements.

A course in General Surgery will commence on February 20th, and cover a further period of six weeks to April 1st. It will comprise all the various branches of surgical work, and as in the case of the Medical Course, the fee will be an inclusive one of fifteen guineas and the members attending will be limited to twenty. The announcement that post-graduate medical instruction in London has been, or is in the course of being arranged in such a way that it is adapted to the require-

ments of post-graduate students will come, no doubt, as welcome news to Canadian medical men. After all, London is the natural Mecca of those Canadian medical men who desire to widen their scope of medical and surgical knowledge by finding out by personal experience what is going on in the large European medical centres. London has an unequalled wealth of clinical material, splendid facilities for research work and excellent teachers. Organization was all that was required to make of it an ideal place for English-speaking, post-graduate students. Now that such an organization is "taking shape," it is to be hoped that Canadians will avail themselves of the unrivalled opportunities offered by London for medical and surgical study of every description.

Book by the Editor of The Lancet.—"Physic and Fiction" by Sir Squire Sprigg, the editor of *The Lancet* is a peculiarly happy combination of medical lore, sociological knowledge and interesting information couched in language humorous, philosophical and, to some extent, impersonal and detached. It deals with serious medical and sociological problems in a manner calculated to attract and hold the attention of the medical man and layman. The dissertations cover a fairly wide range and deal with such subjects as Medical Priestcraft, The Old-fashioned Doctor, Medicine in Fiction, The Medicine of Dickens, They All Lived Happy After (a discussion of medical inspection and certification before marriage), Prizes and Performances (dealing with the question of the value of examinations and prizes in relation to success in after-life), Public Developments of Medicine, The Pathologist in the Street, Medicine in Art, Comfortable Words about Poisoning and Primordial and other Stuff. If one chapter more than another may be singled out for especial praise, perhaps, that on The Pathologist in the Street may be pointed to, although, Medicine in Fiction, The Medicine of Dickens and Medicine in Art will most appeal to the general reading public. So far as medicine is concerned, the aim of Sir Squire Sprigge's essays is to show that medicine is progressive, sometimes advancing by leaps and bounds but more often by the accumulation of knowledge. Lister's reforms and radical teaching are a good example of the first, while the advances due to the second are too numerous to name. However, it is impossible within the scope of a London Letter to review this collection of delightful and distinctive dissertations in detail, so it must suffice to say that the book may be warmly commended to

medical men and laymen alike. There is a certain amount of personal interest attached to a book by Sir Squire Sprigge in Toronto, as he married a daughter of the late Sir Charles Moss, Chief Justice of Ontario. The work reflects credit on the publishers, Messrs. Hodder and Stoughton, of London. It is clearly printed and generally well "got up," a desideratum not always attained in these days.

Things that are Truly Impossible

To The Editor of The Canadian Practitioner:

Dear Sir:—

In the *Daily Star* of the 10th of November, 1921, there appeared some statements from Toronto's Health Office that were well calculated to arrest one's attention.

The Medical Officer of Health mentioned the great value that vaccination had been for the prevention of typhoid fever in the army. This is admitted. It was quite right that those serving in the army should be given the benefit of the vaccine treatment. This is, however, an entirely different problem to that of attempting to enforce vaccination for the prevention of typhoid fever upon the general public. It simply could not be done. It will, therefore, be impossible to secure general immunity in this way.

Notwithstanding the overwhelming evidence in favor of the preventive value of vaccination in the case of smallpox, it is impossible to make it compulsory; and, if a careful census of the people were taken, it would more than likely turn out that fully one half of the people had ignored this means of securing protection against smallpox.

Discussing diphtheria, Dr. Hastings states that some persons are immune while others are not. He goes on to state that this can be determined by the "Schick test" so far as diphtheria is concerned. Further, he states that those that are found to be susceptible can be made immune for several years, and, perhaps for life, by the use of toxin-antitoxin.

Now, let us see what all this would mean. In the first place all the children would have to be tested by the Schick method. After this had been done, the susceptible children, and they would be many, must have the toxin-antitoxin injected into their systems. Some of these would have swollen arms.

All this would have to be compulsory. The resistance that the people would put up against such a practice would bury it out of sight. There would be no more chance of securing a law to permit of this, than there would be of inducing the moon to come down and perch herself on the top of Mount Everest. If Dr. Hastings hopes to educate the people through the lay press to consent to the "Schick test," and toxin-antitoxin treatment, we do not hesitate to say he will fail.

But there is another side to the question. Only a very limited number of children ever contract diphtheria at all, and of these with proper treatment the death rate should be very low. When antitoxin is administered on the first day of the attack there should be almost no deaths.

In the face of such facts, it would not do to advocate that all children should be submitted to the "Schick test," followed in the non-immune group by the toxin-antitoxin treatment, which, after all, may not give protection for more than two or three years, when the child becomes susceptible again.—

Yours truly

ONLOOKER.

Helping German Students

TO THE EDITOR OF THE CANADIAN PRACTITIONER:

DEAR SIR:—

Several times of late we have read items in the daily press to the effect that the Y.M.C.A. students of the University of Toronto propose raising a fund to aid in the education of needy German students. This sum we have seen placed at $3,000. Now, we think that the students of Toronto University would be well advised to abandon this effort for the present. Germany was beaten in the war, but the heart of the people has not been changed. Hunism and Prussianism are still rampant in the German mind.

When the war broke out, the clergymen in Germany, of the highest standing, were among the first to sign a famous document that Germany was right, and that the war was forced upon her. They also defended all the way through the frightful atrocities of the German troops. This is still the spirit of Germany. Were Germany to go to war to-day with some neighboring country, these so-called Y.M.C.A. students would

be among the very first to rush to arms, and to denounce the other country, upholding the killing of women and children and the destroying of works of art and noble buildings.

In the name of those sons of the University who fought and died that Hunism and frightfulness should not rule the world, we ask the students to call a halt. There is no room for idle sentimentality—"slushy sentimentalism"—in the words of Van Dyke. But there is a reason right at home. Of the students of the University who went overseas many are in need of help. They are struggling to make their way through college, in some cases minus a leg or an arm, or with impaired health, or with an empty pocket-book. These are of first claim. They come ahead of any European student.

The President of the University, Sir Robert Falconer, is of the opinion that if any aid is given to European students, it should be limited to Polish students. Dr. O'Meara, Principal of Wycliffe College, is reported as saying: "German students are getting along altogether too well to suit me. I would rather see the others helped first, but, in any case, the matter needs careful consideration."

It is only as yesterday that a fund was raised to erect a memorial to our own students who fell fighting German students. Have we forgotten the unspeakable tortures to which such of our students as became prisoners of war underwent? Have we forgotten that the clergy and medical profession of Germany aided and condoned these things? The proof is overwhelming that the German student body was among the most rabid of all the classes in Germany. Yea, many years before the war broke out it was the boast of students in the German Universities that Germany was going soon to get Great Britain. This is the desire of German students to-day; and why send them money?

We have no doubt but that there will be many a mighty protest raised if any group of Toronto students attempts to financially aid German students. Our wounds are too recent and too deep to be so soon forgotten.

Brigadier-General C. H. Mitchell, Dean of The School of Practical Science, who served abroad and thus came to know the German well, expresses himself thus: "I am dead against it. If they want to collect money to help students, why can't they help our own students in Canada, and especially our own returned men who are trying to obtain an education, sadly handicapped." Speaking of the German students he

said, "They're all right. We want the money here to help our own people. We're just as badly off here as there, particularly among our returned men."

This is clearcut and definite. The European students may be poor, but Germany most guiltily plunged the world into a terrible war. Let her and her people abide the consequences.

In *The Star* of the 18th November, the President of the University, Sir Robert Falconer, was quoted thus: "This is purely a student affair, and I do not desire to assume an attitude favoring either one side or the other." We offer no comments on this, for the public can be safely trusted to judge correctly.

Yours truly,
BRITISHER.

Personals

Dr. T. D. Archibald has changed his office address from 112 College St. to 90 Park Road. He will confine his work to the administration of anaesthetics.

It was announced, December 13th, that Dr. Ashton Fletcher, of 37 Auburn Avenue, Toronto, has been appointed the successor of Dr. Thos. Millman, deceased, as Supreme Physician of the Independent Order of Foresters.

Dr. W. B. Thistle has removed his office to 124 Bloor St. West, and is confining his practice, as formerly, to General Medicine.

Presentation of Portrait to Dr. Temple

It was a pleasant thing to learn of the recent presentation of his portrait by some of his old colleagues and students to Dr. Temple. The address then read to him is printed below. It shows the well-deserved good-will felt towards him, and the sense of obligation for service given and fine example set by him, of almost fifteen hundred colleagues and graduates of the famous old Trinity Medical College and Trinity University. May the day never come to the medical profession when personality and character such as Dr. Temple's should fail to evoke deep and hearty recognition from its members generally.

Dr. Temple was born in Quebec, and spent his first year of medical undergraduate life in Laval University there. The remaining years before graduation were taken at McGill, where his degree M.D., C.M., was taken in 1864. After a short period of practice in India he began in 1867 his life work in Toronto. Here, in spite of a most extensive and laborious practice, latterly largely obstetrical and gynæcological, he found time for many years of most efficient teaching in Obstetrics and Gynæcology in Trinity Medical College, and, after its amalgamation with the University of Toronto, as Professor of Gynæcology and of Operative Obstetrics. It is difficult to overstate the services rendered to womankind over a very wide area of this continent by his efficient, sound, practical teaching in these particular subjects, reproduced in the practice of many hundreds of his students.

The portrait was painted by Mr. Austin Shaw, of Toronto, and is an excellent piece of work. The subject is seated in his official chair as Dean of Trinity Medical College, wearing the pink and crimson gown of a Doctor of Laws. It was presented to Dr. and Mrs. Temple at the Academy of Medicine, in Toronto, on December 12th, 1921. About seventy-five of the subscribers and their wives and daughters were present, and the occasion was a very happy family reunion. Letters and telegrams were read by Dr. C. P. Lusk, the Secretary of the Committee, from such widely scattered points as Hazleton, B.C., Edmonton, Alta., Winnipeg, Man., Port Arthur, North Bay, Sault Ste. Marie, Ottawa, Gravenhurst, Peterboro, Guelph, and Clifford, in Ontario; Chicago, Winnetka, Ill.; Douglas, Arizona; and Detroit, Mich., U.S.A.

The Committee included Dr. J. T. Fotheringham, Chairman, Dr. C. P. Lusk, Secretary, and Drs. F. LeM. Grasett, H. B. Anderson, D. J. G. Wishart, W. H. Pepler, S. Johnson, W. H. Harris, H. A. Tovell, G. A Bingham, H C. Parsons, W. P. Caven, P. E. Doolittle, F. W. Marlow, J. H. McConnell, O. A. McNichol, B. O'Reilly, Chas Sheard, M. P., and J. M. Baldwin.

The address which accompanied the portrait follows:

To

J. A. Temple, Esq., M.D., C.M., McGill, M.D., Toronto and McGill, M.R.C.S., Eng., Fellow of the Obstetrical Society of London, late Professor of Obstetrics and Gynæcology, and Dean, in Trinity Medical College, Professor Emeritus, University of Toronto:—

Dear Dr. Temple:

The happy suggestion recently took form among some of your many warm friends chiefly though not exclusively among your former colleagues and students, that your portrait should be secured for ultimate presentation to the Academy of Medicine of Toronto, as an addition to the gallery of portraits of well-known teachers and practitioners of the Healing Art which is being gradually brought together there.

No argument is needed as to the propriety of thus preserving for future generations the lineaments and the memories of personalities outstanding in their generations as they pass by upon the Stage of Time. To paraphrase a famous sentence:—Those who cherish not the memory of the fine performances of their predecessors are not likely to accomplish aught worth remembering by their successors. Or, as Burke puts it:—"People will not look forward to posterity who never look back to their ancestors."

The reticence which is characteristic of our race and class makes us dumb and awkward in expressing to our friends during their life-time our deep appreciation of their fine qualities and great things done. But we take leave to assure you that many hundreds who have sat under your teaching, or been associated with you, either in academic work or in practice, are filled with vivid recollection and admiring appreciation of your qualities as a man and as a friend, as colleague and teacher, as a constant examplar of all that is best and highest in professional relationships, and in unselfish service of ailing human beings. We see in you a faithful exponent of the best

ideals, not of Hippocrates only and his teachings and spirit, but of the Rule, Golden alike in Medicine and in all other walks of life, of doing as we would be done by.

We remember too the tact and sound judgment which always avoided counsels of perfection, as pernicious in Medicine as in Theology, and always exemplified the wisdom of the proverb that the Best is the enemy of the Good. The skilled technician in you never over-rode the sound and kindly clinician.

The subscribers to this testimonial therefore address you through their committee, and ask you to accept for yourself and Mrs. Temple the temporary custody of this portrait. They join in wishing you many happy years together, and all the blessing the lengthening days can bring in their train.

(Signed) J. T. Fotheringham,
Chairman.

C. P. Lusk,
Hon. Secy.-Treas.

Toronto, Dec. 12, 1921.

Economical Motoring for Medical Men

There is a great waste of money in present day motoring because so many new car-owners are unacquainted with their motors.

The first thing to be considered if you want to increase economy without losing efficiency is to find out what is your gasoline consumption. Set your carburettor by means of the hand throttle so that the engine "ticks over" just quietly and evenly when the gear is in neutral. The function of the carburettor, is to turn the liquid into a homogeneous spray, neither too weak nor too rich, and leaving no streaks of unvaporised fuel. Great economy can often be effected simply by changing the jet to one of a size smaller. You may, as a result, sacrifice speed and power on hills, but this is of no importance.

The heat of the engine helps the carburettor in vaporizing the fuel, and so the induction pipe should be provided with means of warmth from the engine. When first starting out, on a cold morning particularly, the car runs poorly. This is due solely to the lack of heat. As the journey continues, the engine becomes warmer, and the running consequently improves. A hot-water jacket fixed round the induction pipe is a

To sleep or not to sleep—
That may be the problem

Sleep, "that knits up the ravelled sleeve of care," may be difficult to achieve for a patient who drinks tea or coffee excessively, whose nerves are probably kept on tension by the irritating effect of caffeine.

Every doctor knows that without sleep, reconstruction of any debilitated state is impossible. During sleep the final conversion of food into vital nutrient material is largely accomplished.

If your patient is neurotic and doesn't get the proper amount or the proper quality of sleep, it might be well to interdict tea and coffee for a week or two, and order Instant Postum.

With thousands of people, Postum is as satisfying in flavor as the average coffee. This is undoubtedly one of the reasons for the increasing popularity of Postum throughout America. It serves every purpose of a hot-meal-time drink, and as it contains no harmful ingredients, no ill-effects follow its use.

Postum is an absolutely pure cereal beverage, scientifically prepared in the largest, most modern and sanitary plant of its kind in the world.

Suggest Instant Postum to your next neurasthenic, Doctor, and see if it does not help your general sedative and reconstructive treatment.

Samples of Instant Postum for individual and clinical test will be sent on request to any physician who has not received them.

Canadian Postum Cereal Co., Limited

Windsor, Ont.

sure aid to saving gasoline. Also, the carburettor is better built right up close to the engine.

The foot-pressure on the accelerator pedal should be quite gentle. For the most of the time that you are driving a car, the throttle need not be open more than a quarter of the time; however, the unevenness of the road and movement of your right leg, causes the throttle to be constantly varied, and so the suction of the jet varies without regard to the speed of the car—an obvious form of waste.

Air forms an important part in vaporization of gasoline, and the more it is used the more economical will be your fuel bill. Therefore, an extra air valve fitted to your carburettor will be an asset.

Air costs nothing, therefore use as much of it as possible, commensurate with good running.

Some carburettor designers arrange for an intake of hot air, and this is all to the advantage of the vaporization, for hot air aids the process much more effectively than cold air.

Never over-fill the pump in lubricating; it only gives you a dirty engine because oil is bound to get past the piston rings, which causes the forming of carbon in the combustion chamber.

To get up a hill with the least expenditure of extra gasoline it should be taken at a rush, so long as you can see ahead and there is no dangerous bend. You can come to a stop on climbing a hill very quickly, therefore speed on a hill is safer than on the level. I advise taking hills at thirty miles an hour, or, in fact, top speed, and as soon as the engine begins to flag, change down gears.

If more economy were practised descending hills some of this extravagance in hill-climbing would be overcome. To descend hills economically one should "coast" down. Put out the clutch, leave gear in "top," switch off the engine, shut the throttle, and your car will glide silently down the hill, the while your engine is being cooled. At the foot of the hill, let in the clutch gently, switch on engine and open throttle according to requirements. Do not open your throttle more than is necessary to maintain a certain speed. The wider open the throttle the more fuel is being used.

The continual jolting of the road causes your foot unconsciously to move up and down on the accelerator pedal; in fact it becomes irregular, and this is increased on bad roads. To avoid this, it is a good plan to use the hand throttle.

DR. SENIOR: "It is really quite a trick to apply the Antiphlogistine jacket in pneumonia, Doctor"

DR. JUNIOR: 'Yes I was stumped, at first; that is before the nurse came down and I ordered the jacket put on. as you suggested yesterday, when I saw you."

DR. SENIOR: "I was glad to find one of my old nurses in charge of the case. She has had a lot of experience—the first time she worked with me in pneumonia—some twenty years ago, when many doctors and nurses did not know about Antiphlogistine, I had to do the job myself."

DR. JUNIOR: "Well, I was wondering this morning, after I had decided to try Antiphlogistine in pneumonia, how the —! — that is I —"

DR. SENIOR: "Now you know, I guess! That is—you know how the jacket is put on and, how comforting it is to the patient."

DR. JUNIOR: "Yes, and more than that, Doctor, the temperature has gone down nearly three degrees since morning. Now—before you go: How long shall we leave it on?"

DR. SENIOR: "Miss Hope knows. But, you send to The Denver Chemical Mfg. Co., 20 Grand Street, New York, and ask for their booklet on how to use Antiphlogistine—now!—don't feel that you are asking a favor. The Antiphlogistine people will also send you a copy of their valuable brochure "The Pneumonic Lung."

To suddenly force your engine to increased speed is always bad and very extravagant. At the same time do not suddenly stop your car by applying the brakes, unless, of course, you are obliged. Try to drive without using the brakes.

A great number of makers do not fit ignition levers on their cars, that is to say, the engine has "fixed ignition" set at one position, and thereafter immovable so far as driving is concerned. The reason this practice in general, particularly on small cars, is that so few motorists would use the lever properly if it were there.

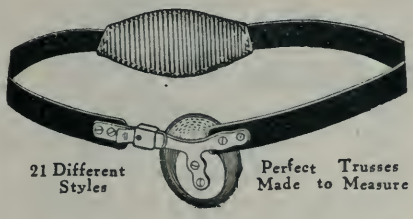
Either they would retard it on a hill and forget to advance it again on the level or they would advance it for speed and forget to retard it for slow running, or else they would take a hill with the spark fully advanced, and so on. This being so, the makers have come to the conclusion that "fixed ignition" is the safest and fairly fool-proof, though admittedly no driver can get the best out of his car so fitted.

Inequality in driving, and roughness make for extravagance. I consider that as much "touch" should be developed in driving as in playing the piano, and as a pianist, I know what is meant by "touch." Your tyres, at all times an expensive item of motoring, will last much longer if you use your throttle and brakes considerately. If you watch the average taxi-driver you will observe how he races his wheels around to the destruction of his tyres. Taxi-drivers are notoriously the worst drivers in London.

If you will follow the various suggestions here laid down, I am sure you will save 25 per cent. of motoring costs.

This article was submitted to Dr. P. E. Doolittle, of Toronto, who expressed the opinion that it contains valuable material for medical car owners in Canada. Acting on his suggestion, we have made certain changes, which have been found necessary because of the difference in the climates of Great Britain and North America.—*Edit.*

ART OF PROSTHESIS



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Miscellaneous

A New Vitamine Preparation

Parke, Davis & Company, whose researches on the vitamines resulted last year in the placing of a vitamine extract preparation, called Metagen, on the market, are now offering an Emulsion of Metagen and Cod-Liver Oil.

Metagen, it will be recalled, contains the three known vitamines, A, B and C; and cod-liver oil contains the fat-soluble A vitamine in abundance.

The fat-soluble vitamine is essential to nutrition, and is believed by Mellanby and others to supply an antirachitic factor. The new preparation, containing not only the quota of fat-soluble A vitamine that belongs to cod-liver oil, but a portion of the same vitamine from Metagen, is indicated especially in the treatment of rachitis and, since it contains also the other two vitamines (antineuritic and growth-promoting, and antiscorbutic), there can be no question of its value in malnutrition in general, especially in cases which during the winter months are subject, on account of low resisting power, to frequent attacks of bronchitis.

The dose of the new preparation for children is one to two teaspoonfuls; for adults, one to two tablespoonfuls. The preparation contains 40 per cent. of pure Norwegian cod-liver oil and 2 per cent. of Metagen.

Air Surgery

By a Physician.

Though a "crash" in civilian flying is the rarest of events it is by no means uncommon at aerodromes where numbers of pupils are learning to fly.

The majority of "crashes" are merely forced landings: engine trouble occurs and the pilot has to land suddenly and *somewhere;* but a few are more serious.

To meet any possible "crash," no matter how trivial, an elaborate system of instant first-aid has been organised. Seconds in these cases may mean the difference between life and death.

Try a Lifebuoy Bath Yourself, Doctor -

See if its cleanly odour, its creamy, velvety lather and the healing effects of the antiseptic, vegetable oils do not have a wonderful tonic influence on a tired body.

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LEVER BROTHERS LIMITED
TORONTO

In every aerodrome there is a hospital, an ambulance, and a doctor, with two or more trained assistants. These never leave the aerodrome while flying is going on.

When flying is about to commence, the flying officer in charge rings up the hospital and warns the doctor. He then puts his organisation into action, and it remains in action until he receives information that flying is over for the day, when the last "bird" has returned to roost.

First the ambulance goes out and takes up a central position on the actual flying ground; there it stays until flying is over.

The ambulance carries, besides the usual surgical appliances for dealing with any accident, fire extinguishers, weapons for hacking away wreckage, and an electrically heated blanket. "Shock" is one of the most deadly affairs in a "crash," and the blanket is there to minimise it.

In the hospital ready for action is the latest apparatus for treating burns, the "Beltone," which gives out a paraffin spray.

* * * * *

The hospital contains a special "crash" room where everything is kept ready to deal with an accident and to perform any operation that may be necessary on the spot.

With an impending or an actual "crash" the hospital is instantly rung up with one fatal word "*Crash!*" and the doctor and his assistants jump into the side-car and ambulance and dash off. The immediate difficulty is to locate the scene, and here a good knowledge of the country, and the side-car, are invaluable.

Directly the victim is located first-aid is rendered on the spot, and he is then rushed back to the hospital in the ambulance. The details of any surgical procedure would interest no one, but there is a point that may.

If a man "crashes" but is uninjured and not much shaken he is encouraged to go up again later on the same day.

By doing so he is less likely to lose "nerve." Needless to say, a careful record is kept of every "crash."—*Over-Seas Mail.*

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Original Communications

Goitre:—Indications for Surgical Treatment

By J. D. McEachern, M.D., Lecturer in Surgery, University of Manitoba; Attending Surgeon, Winnipeg Children's Hospital; Consulting Surgeon, Winnipeg Municipal Hospitals.

The thyroid gland consists of an isthmus and two lateral lobes. These lobes are situated on either side and in front of the larynx and upper three or four tracheal rings. The isthmus of the gland passes in front of the third and fourth rings of the trachea. The blood supply of this gland is richer than that of any other gland in the body, being proportionately five times greater than that of the kidney. In diseased conditions the venous sinuses may be greatly increased in capacity, giving rise to a pulsating tumor with a haemic murmur.

The thyroid developing as an outgrowth from the buccal epithelium, is originally formed like an ordinary gland; later, its branching tubules are broken up into isolated vesicles. Although embrionically it has a duct, connecting it with the foramen calcum at the back of the tongue, this is obliterated early in intrauterine life leaving the gland ductless. So far as we know the secretion of the vesicles can only escape by passing backward through the cells that produced it.

Structurally the thyroid consists of a framework of connective tissue, enclosing numerous spherical or oval vesicles, which are lined with cubical epithelium.

Congenital absence of the thyroid gland gives us that physical and mental deficient known as the cretin. In later life, through deficiency in thyroid secretion, the disorganized body chemistry and the accompanying interference in mentality are seen in the myxoedematous patient. The work recently done in connection with body metabolism has confirmed the opinion, held for years by clinical observers, that hypofunction of the thyroid impedes body metabolism, while hyperfunction increases it. The secretion of the thyroid appears to have the power of releasing the energy stored in the body cell.

Goitre occurs in practically all countries though it is known to be especially prevalent in some localities, where it may be associated with cretinism. This local prevalence of the disease has been considered by some authors to be due to a deficiency of iodine in these areas. This theory however, does not explain the high percentage of women (approximately seven to one) affected by the condition, nor the small percentage of the population in which goitres occur. The enlargement of the gland has been attributed to infection, chemical irritation, and various forms of toxæmia, but as yet these theories while interesting are purely speculative.

Inflammation of the thyroid is not common and is usually chronic in character. In the chronic type the gland is hard, symmetrical and small. This condition has been described as "woody thyroiditis." Possibly a certain percentage of these glands are tubercular. Acute infection with abscess formation occasionally occurs, and if not drained the abscess may rupture into the trachea. I saw one such case in 1916, the patient finally dying of broncho-pneumonia.

A rapidly growing hard goitre, smooth and even, is probably due to hæmorrhage into the gland structure.

An irregular hard and nodular gland is probably malignant, especially if the adjacent lymph glands are enlarged.

Plummer, after an exhaustive study of thousands of cases at the Mayo clinic, has classified goitre into colloid, anedomatous, and exophthalmic. These three varieties, however, do not always run true to type. Thus the colloid goitre may show the presence of adenomata, or the adenomatous gland may show areas of hyperplasia corresponding to that found in Grave's disease.

Colloid or parenchymatous goitre is the common cause of thyroid enlargement in young people. It includes the goitre of adolescence so often seen in young girls. The enlargement is usually uniform in character including both lobes and the

isthmus. Sometimes the gland will show irregular masses in its substance which are due to associated adenomata or cyst formation. Structurally the vesicles are distended with colloid. The epithelial cells lining the acini are low and flattened. Absorption of the wall separating adjoining alveoli may result in the formation of colloid cysts. The colloid is normal in appearance. Fatty and hyaline degeneration with fibrosis and calcification may be present. Colloid goitre is not infrequently associated with tachycardia and nervousness and so may be confused with Grave's disease. The basal metabolic rate furnishes a means for differentiating between them, for in colloid goitre the basal metabolism is normal or below, never increased. The colloid goitre does not require surgical treatment unless it be for urgent dyspnœa. The enlargement of the gland will disappear under the administration of iodine. Failure of the swelling to disappear under iodine treatment probably means that the goitre is not a simple colloid one, but one of the mixed types associated with adenomata. Under treatment the colloid portion having disappeared the adenomatous portion remains.

Adenomatous goitre is the commonest type of thyroid enlargement, and most of the very large goitres belong to this class. Clinically it may be recognized by the irregularity of the growth. The enlargement is asymmetrical and one or many tumors may be felt by the examining hand. Structurally the gland is found to contain within its substance encapsulated adenomata which probably have developed from fœtal rests. Hæmorrhage is prone to occur within the capsule of the adenomata and may cause a rapid enlargement of the goitre. Degenerative changes are common and according to the change which predominates these goitres are spoken of as hæmorrhagic, cystic, or calcareous. The great majority of adenomatous goitres produce no constitutional symptoms and will require surgical interference only on account of pressure symptoms or to obtain relief from the deformity. In these cases the secretory activity of the gland is normal or slightly below. However, twenty-three per cent. of patients presenting themselves with adenomata of the thyroid are found to suffer from hyperthyroidism. These symptoms of hyperthyroidism do not appear for many years after the goitre is first noticed. This condition has in the past been confused with true exophthalmic goitre or Grave's disease. There are, however, some clinical factors which will serve to differentiate between them. The long duration of the goitre before symptoms of hyperthyroid-

ism appear—in cases of exophthalmic goitre the symptoms of hyperthyroidism follow the appearance of the goitre within an average of nine-tenths of a year, while in the adenomata with hyperthyroidism an average of fourteen and a half years will elapse before the symptoms of hyperthyroidism will appear (Mayo). There is, in the toxic adenoma, a definite tendency to involvement of the cardio-vascular system, with decrease in blood pressure in the earlier stages, before the onset of myocardial degenerative changes with palpitation, arrhythmia dyspnœa and œdema; while in exophthalmic goitre the nervous system is more deeply affected. True exophthalmos is probably never present in hyperthyroidism resulting from adenomata, while in Grave's disease it is present within three months in fifty per cent. of cases and in eighty-seven per cent. before the end of the second year (Mayo). The toxic symptoms of the adenomatous thyroid do not as a rule appear before the thirtieth year. As the thyroid gland is essential in the developmental period of life it is considered inadvisable to operate before the age of twenty-five or thirty years. In individuals otherwise healthy, a thyroidectomy may be done with very small risk, and it is probably better to operate on these cases than to subject them to the risk of developing toxic symptoms. If hyperthyroidism is present when the patient is first seen, operation should be undertaken unless the damage already done is so great as to make the risk unjustifiable.

Exophthalmic goitre, though it may occur at any age, is essentially a disease of the third and fourth decades of life. The onset is often insidious, though in some cases the condition may develop suddenly, and go on rapidly to a fatal termination. As pointed out by Plummer this disease frequently runs a wave-like course; the first crisis usually occurring in the second six months after the onset. In other cases, however, the course is more chronic in character without the development of a thyroid crisis. After a crisis the patient improves considerably as far as the general condition is concerned, but usually the improvement is temporary in character and, within a few months or years, another attack develops. During these attacks marked damage is done to the vital organs, and, even if the hyperthyroidism is later relieved, these patients may become chronic invalids. The symptoms of this disease are too well known to require description at length. The symptoms of hyperthyroidism appear shortly after the goitre is noticed, and in some cases the nervousness, tachycardia, loss of strength, tremor, etc., precede the enlargement of the gland. The goitre

is usually much smaller than in the colloid and adenomatous types, and is symmetrical as a rule. Microscopically the epithelium lining the acini are found to have undergone hyperplastic changes. Very little colloid is present in the vesicles. The metabolic rate is markedly increased.

While it cannot be denied that a few patients improve and apparently recover under medical treatment, it must be recognized that surgery offers the best hope of amelioration and cure of this condition. In the earlier stages it is impossible to distinguish between the cases that will respond to medical treatment and those that will not; and while surgical procedure is delayed in the hope of relieving the patient medically, severe symptoms may develop causing permanent damage to the vital organs.

With increased knowledge and improvement in the surgical management of these cases, the operative mortality has dropped from as high as twenty per cent. to about three per cent., and, as our knowledge grows further, it is to be expected that there will be a further drop to one per cent. or even lower. Much will depend on the judgment of the individual surgeon, in selecting the time to operate and the type of operation to perform in each case.

It is well known that patients during acute thyroid crisis are exceedingly dangerous surgical risks. These patients should be treated by rest and careful nursing until after the crisis is past, and there is gain in weight, with lowering of the pulse and metabolic rate. Patients with degenerated heart muscle and degenerative changes in the vital organs must be handled with caution. In such patients it will usually be found safer to perform preliminary ligations under local anæsthesia and, at a later date, when their condition is sufficiently improved, a thyroidectomy may be done. The best results will be obtained in patients operated early in the course of the disease before marked damage has been done to the vital organs.

Medical Progress—including the Teaching of Medicine.*

By Henry S. Pritchett, Ph.D., Sc.D., LL.D., President of the Carnegie Foundation for the Advancement of Teaching.

Dr. Pritchett, in his address at the New York Academy of Medicine, gave what he called a "Layman's view" of the progress of medicine (N.Y. Med. Rec. Dec. 3, 1921).

Medical science is almost as old as history. In the Alexandrian School of Medicine some 2,000 years ago, the teaching was founded on science. On the other hand, there was the great group who thought little of scientific medicine, but engaged in the art of healing. Among these were chiropractors, osteopaths, neuropaths and Christian Scientists.

As those who supported scientific medicine were opposed to the notion that all who desired should be allowed to practise the art of healing, and because he (Dr. Pritchett) had had something to do with teaching, he felt that he might speak of his conception of scientific medicine, having in view the prevention, diagnosis, and treatment of disease.

Ideas as to the teaching of scientific medicine had changed, and the number of medical schools in the United States had been reduced from 160 to 85. Perhaps too many have been eliminated.

Dr. Pritchett wished to refer to undergraduate, and post-graduate education, medical research, and hospitals in relation to medical colleges. As a man outside medical schools, yet in close touch with teaching, he was interested in the fact that medical instruction seemed to be weaker than instruction in other professional schools. Very few men teaching in medical schools had given attention to the art of teaching. There should be increased emphasis on this art, and, closely connected with it, there should be reform of the undergraduate medical school. To-day in the medical schools anatomy, physiological chemistry and pathology are taught alone. A man should learn these branches along with the practice of medicine. Under the present curriculum the medical student was crowded with a burden he could ill carry, but he was not taught how closely pathology was associated with the actual practice of medicine. One of the greatest reforms to be effected was a re-study of the medical curriculum with the effort to arrange anatomy and pathology

*Read at the New York Academy of Medicine, November 3rd, 1921.

in such a way that a student began the study of medicine and surgery along with these fundamental sciences. This could be done best by the men who knew most about the methods of teaching, and, after all, medical education was not much different from other education. First, one must have a grip on the fact, and then one must think about the fact. This applied to all professional education, whether it was medicine, law, or, perhaps, theology. The fundamental sciences of medicine were so closely associated with actual practice that the student must learn to think of them in terms of applied science. There was a general feeling among teachers, who knew medical schools, that the great improvement that could be brought about in them would be a reform in the curriculum so that the fundamentals would not be separate things, but part of one course.

Turning to the post-graduate school, the thought that stood out most notably was that only a start had been made when a man was put through the undergraduate school, and turned loose on the community to learn to practise medicine. There should be an opportunity for the graduate in medicine to return to a post-graduate school, and refresh his knowledge of medicine and surgery. As he had watched different groups of men he had seen none so anxious to learn as those who had practised, and returned to refresh and increase their knowledge of medicine, but the old "country doctor," who was the salt of the earth, had disappeared, and he believed he had gone not to return.

The next great agency is medical research, which, with the spirit of endeavor to find the truth, must constitute a part of every medical school. It must be stated, however, there is probably no subject in which there is more fraud than in research. Every college and university covets the reputation for research. Institutions would rather have a fictitious reputation for research than the best reputation for teaching. We could never afford to lose sight of the fact that the primary duty of the college and the university was to teach and train men for the practice of medicine—to teach clearly and well, and then the type of men turned out took easily to research.

There are four types of research workers:

1. The extraordinary man who is able to advance the boundaries of knowledge and make discoveries. These men are rare, and often it is the chemist or bacteriologist who makes the discovery which is applied to medicine.

2. Men who are industrious and willing to take up the technique, and to apply it to a piece of work of great value, that was not a discovery, and that would never startle the world.

3. Those who took to research because it was easier than teaching.

4. Men who seemed to be in research simply to spend money, and a great deal could be spent in that way.

Research workers were like prospectors who went out from their winter quarters to spend the summer in prospecting. When they returned in the fall one or two had found real metal. Perhaps eight or ten had found something of value in advancing the resources of the country, which would require a great deal of work to develop—but the great body of these men had just bored holes in the ground and amused themselves. Every man is not fitted for research. Schools and colleges did best if they regarded teaching as their first duty and research as the *breath of life;* but to be the breath of life it must be real research, patiently thought out, and prosecuted with patient, thorough, humble work. Research was of enormous importance, and those who had the real spirit ought to have the most encouragement.

In the further development of medicine there remained one other feature to be discussed, and that was the organization of medicine itself. The time had come when the profession should see that what it had been taught to render to mankind could be obtained by the general public, not only by the very poor, who could obtain it in hospitals and clinics, or the rich who were able to pay for it, though it must be admitted that even though they were able to pay for it they received very poor advice—but by the common run of men, those with incomes of $100 to $150 a month who now found good medical advice beyond their means.

Neuro-Psychology and Law.

By a Lawyer.

Both medical men and lawyers are interested in Medical Jurisprudence. The recent Presidential Address of Dr. Edward Ryan before the Ontario Neuro-Psychiatric Association looking toward a change in Canadian Medical Jurisprudence therefore demands more than superficial attention.

Dr. Ryan apparently aims at a change in substantive law and also in procedure. There are few things more important, and a discussion of them, to be useful and not merely barren verbiage, requires clear thought, plain language, and accurate statement of fact.

The thesis, unambiguously stated, is "Psychiatry is now an exact science," and on that basis is built the demand for a change in law and practice. Of course the word "Psychiatry" is not used in the etymological and strict sense of the "treatment of mental diseases," but in the broader sense of the "branch of medicine dealing with mental diseases;" with the *treatment* of mental diseases, the law has nothing to do.

The theory that Psychiatry is an exact science is, so far as I know, new in this Province. In an exact science, two or a score or ten thousand honest and capable persons must, necessarily, arrive at the same result, and the extent of this necessity is the measure of the exactness of the science. If I ask any number of competent professors of mathematics for the differential of a function, they will all give the same answer—there is no room for opinion. Is this the fact with Psychiatry? Let the first case given by Dr. Ryan furnish the answer.

Michael Fraser, a man of 75 or more, was considered by some of his people incompetent to manage his affairs, and the matter was brought to Court for determination,—the question being "Senile dementia or natural senility?" One would think that if Psychiatry were an exact science, or anything approaching an exact science, there could be no difficulty,—no difference of opinion.

In fact, Dr. Ryan and the late Dr. Jukes Johnson examined Fraser at Midland in the presence of Dr. C. K. Clarke, then Superintendent of the Provincial Asylum at Toronto, the late Dr. Bruce Smith and Dr. Raikes, of Midland. I think that if competent psychiatrists had been sought Drs. Ryan and Clarke would be about the first to be thought of, while Dr. Bruce Smith had had sixteen years' experience in the care and treatment of the insane.

Dr. Ryan swore, July 13, 1910, "that he is suffering from senile dementia;" June 14, 1910, "that he is now . . incapable of managing himself or his affairs." But Dr. Clarke swore, July 5, 1910, that he "found no evidence whatever of any brain disease," and, July 11, 1910, that "he had preserved his faculties wonderfully," and there was no "senile dementia." Dr. Jukes Johnson swore, June 14, 1910, that he was "suffering from senile dementia, an insanity which is a condition of unsound mind, and renders him . . . unfit to manage himself or his affairs." But Dr. Bruce Smith swore, July 2, 1910, that he could "find no evidence of any pathological condition due to disease of the brain" and his mental condition that of any man of his age; July 11, 1910, "characteristics . . . only incident to old age in a normal man . . . not senile dementia."

Let me say here that I have known three of these four doctors somewhat intimately,—I have for them the greatest esteem and respect: and have not the slightest doubt that all four were absolutely candid and honest as well as competent. To support the contention that Psychiatry is an exact science, it is inevitable that two out of the four were incompetent or perjurers. Is that Dr. Ryan's theory? Or has Psychiatry got out of the category of experimental sciences in the last decade?

To complete the story of Dr. Ryan's examinations: Dr. Raikes, who had been Fraser's medical attendant and had known him intimately for years, swore, June 30, 1910, that "he is a normal man . . . he is not suffering from and has no symptoms of acute mental disease."

This is the man of whom Dr. Ryan says in his address "it was clear that he was well advanced in the childish form of senile dementia." But this is not all. Dr. Beemer, Medical Superintendent of the Hospital for Insane at Mimico, examined Fraser with Dr. Raikes, June 20, 1910; he swore, June 23, 1910, that "he was a normal man, showing only the impairment and reduction normal to advancing age, and that he was not suffering pain and had no symptoms of acute mental disease . . his present mentality is not senile dementia,"—and on his cross examination, June 30, 1910, he repeated his "opinion that Fraser was not suffering from senile dementia."

Dr. James Russell, of Hamilton, Superintendent of the Asylum for the Insane there for eleven years, examined Fraser twice and July 2, 1910, he swore that he "found his reasoning sense and judgment good; while there is some evidence of senility as the result of old age, I can find no evidence whatever of senile dementia and, in my opinion, he is not suffering from any such affliction."

Dr. Harvey Clare, who has had ten years' experience with the insane in the asylums at Toronto and Mimico, also examined Fraser and swore, July 5, 1910, that he was satisfied "he is not affected in any way with senile dementia."

One rather wonders how the case would have resulted if there had been an official body of psychiatrists appointed by a Provincial administration, whose report would be binding, in law or in practice, upon the courts.

The Court declined to pass upon the question so much in dispute, on affidavit evidence; and directed it to be tried on 'viva voce' testimony. It was heard before Mr. Justice Britton at Barrie and Toronto—five days in all. Six experts were called,—"all eminent in their profession," and others were ready to be called, and would have been called, had the law not been changed in consequence of the scandal of the Sifton Trial at London, where a score of medical men swore one way and as many the reverse.

Drs. Ryan, Cotton and Jukes Johnson swore in substance that Fraser's case was one of pronounced senile dementia, and that he was quite incapable of managing himself and his affairs: Drs. Clarke, and Beemer, and Mr. Irving Cameron, swore in substance, that he was quite capable of managing himself and his affairs. Four other medical men. Drs. Raikes, Russell, Spohn and Bowman, were called on questions of fact, and there were many lay witnesses. Mr. Justice Britton, recognizing that it was not an ordinary lawsuit he was trying, but a solemn inquiry by the Court into the capacity of a Canadian citizen, thought that Fraser should appear in person. As he could not well be brought into the Court, it was, with the consent of all parties, arranged that the Court should go to him. The statement that "the judge of the Court of Appeal practically disregarded the medical evidence and paid a personal visit to the man's house to study his mentality" if it is intended to refer to Mr. Justice Britton, and is not an inadvertence, is a gratuitous insult to the memory of as honest and as painstaking a judge as ever sat upon any Bench. Mr. Justice Britton examined the medical evidence with great care, he consulted at least one brother judge of some experience in such matters, and his written judgment shows that he did not at all disregard the medical evidence. The report is in print for anyone to see—(1910) 24 Ontario Law Reports, pp. 231-233.

The trial judge says, p. 232. "I must say that, in my opinion, the weight of evidence of the medical men is in favor of sanity," and he so decides.

Now began the "dragging from Court to Court." I do not know that Dr. Ryan reprobates the conduct of the litigant who

still had confidence in the doctors' opinion,—at all events the side claiming senile dementia appealed to the Division Court of three judges. These judges had Fraser examind by Dr. Caven, who came to the conclusion that "he is sane and in his right mind." They heard the evidence of Dr. Bruce Smith, who now found "marked evidence of senile deterioration," and, after hearing the evidence as to Fraser's conduct during the past year, thought him "incapable of taking care of himself and his affairs." The Court, finding that Fraser could not come before it, removed itself to Fraser, and Fraser was examined at some length. Other evidence was also taken. In the result this Division Court, whose judges were the only judges, except Mr. Justice Britton, who saw Fraser, came to the conclusion that Dr. Ryan was right, and so decided. If it be intended to say of these judges that they disregarded the medical evidence, the answer is plain: read the report. Mr. Justice Middleton, one of the three, discusses it at length—24 Ontario Law Reports, pp. 273-280.

And now the wife was dissatisfied, and exercised her right as a British subject to have the opinion of the highest Court in the Province;—the Court of Appeal reversed the Division Court holding, four judges to one, that the judges of the Division Court should not have seen Fraser or opened up the case to be tried before them, but that, if they were dissatisfied with the judgment of Mr. Justice Britton, they should have ordered a new trial—26 Ontario Law Reports, p. 508—and the Court of Appeal itself ordered a new trial by reason of the new facts brought out before the Divisional Court.

If, as Dr. Ryan says, the parties settled, I must say it was a most sensible thing to do in view of the extraordinary difference of medical opinion and the contradictory evidence of competent psychiatrists, who had not discovered that their science was an exact science.

I do not understand that a change in the law is desired in such cases as this—the law is that one with senile dementia and unable to manage himself and his affairs is put in charge and not allowed to interfere with his property. But, apparently, a change in the practice is suggested, whereby an official body of psychiatric experts will have the decision. If that had been the law, it would have been a mere lottery, for if Dr. Ryan commanded a majority in the Commission, Fraser was incompetent, if Dr. Beemer or Dr. Clark, he was competent.

The next case indicates a suggestion that the substantive law should be changed. What is called "the well-known New Brunswick Will case, which forms the precedent for Canadian

Jurisprudence", is referred to. I presume the reference is to the well-known Nova Scotia case of Skinner vs. Farquharson, 33 Nova Scotia Reports, p. 361; 32 Supreme Court Reports, p. 58, which is a "precedent for Canadian jurisprudence" as no New Brunswick case is.

The testator had the insane delusion that his wife and son had incestuous relations. He made a will cutting down the amount left to them in a former will, but leaving them both a substantial amount and making her executor and guardian.

The Surrogate Judge of Probate in Nova Scotia seems to have misunderstood the evidence. He held that the delusion did not appear until after the new will was made, and had nothing to do with the change. The Supreme Court of Nova Scotia reversed the decision, holding that the change was induced by the delusion. The Supreme Court of Canada reinstated the original judgment, the majority of the Court thinking that the provision for wife and son and the making the wife executor and trustee were inconsistent with the belief of the testator that they had been so sinning against him. This conclusion may have been right or it may have been wrong, but, in any case, it was a question of fact.

I do not find any statement in this case or any other that "the law holds that a man may be insane on one subject and sane on another."

Surely the statement "How a man can be insane and sane at the same time, medicine cannot reconcile" is playing with words. Medicine can and does recognise that a man may have an insane delusion and still be perfectly competent to transact ordinary business. For example, I knew a very capable farmer's wife who believed herself the daughter of a wealthy nobleman, and believed that the farm owned by her (real) father was bought for her by her English (supposed) father; and she refused to accept her share of the proceeds of the farm when it was sold. Yet she was wholly capable of doing ordinary business: she was shrewd and, away from her delusion, she had even a keen sense of humour.

Socrates believed that a demon spoke audibly to him on occasion, warning him against certain courses. Was he sane in respect of this hallucination, or was he wholly insane?

The whole misunderstanding on the subject of testamentary capacity is due to the idea that there is some magic in the word "insane." Neither in this nor in any other case does the law care tuppence whether a man is called "insane" or not. Thousands of "insane" men have made perfectly valid wills and scores of "insane" men have been rightly hanged.

In respect of testamentary capacity it was, at one time, thought in law that, as "the mind is one and indivisible", we should not "speak of general and partial insanity," and, if the testator had a "delusion . . . belief of things as realities which exist only in the imagination," his will would be invalid although the delusion did not produce or influence the will. In that view Socrates, the wisest man in Greece, would have been incompetent to make a will. "Mental unsoundness, however slight and however unconnected with the testamentary disposition in question, must be held fatal to the capacity of the testator." This has been changed within half a century. The Courts do not embark on metaphysical or psychological inquiry. They recognize, as all sensible men do—I had not thought and do not think that medical men do—that there are delusions, the offspring of mental disease, and so far constituting insanity, which yet leave the patient in many other respects rational and capable of transacting ordinary affairs and fulfilling the duties and obligations incidental to the various relations of life. The Courts are not so absurd as to deprive a man with a "kink" amounting to an insane delusion, of the management of his own affairs or of the power of disposing of his property by will (if it is plain that the delusion had nothing to do with the disposition in the will).

Does anyone want that law changed just because a psychiatrist says that a man cannot be insane and sane at the same time?

What "statutory changes" does the President desire or suggest,' or consider "important and necessary in the interest of justice?" Statutes will not make judges agree any more than doctors, nor will they make a trial judge agree with the best medical expert.

The case of G——— raises the vexed question of want of power in inhibition. Our law knows nothing of the so-called "moral insanity" or of want of power to control volition. This matter has been raised again and again and discussed from all points of view,—the hardship, on the one hand of holding one responsible for what he could not help, the danger on the other hand of allowing a criminal to escape because he says, "I could not help it." Let every one who really wishes to form an opinion worth while read the Report of the Criminal Responsibility Committee on the Medico-Psychological Association in 1894-6. who felt "the ground for a . . . demand for an alteration in the law was dissolving beneath their feet." Dr. Oppenheim. who, in his "Criminal Responsibility of the Insane," London. 1909, has considered the question from all points of view (p. 246), without claiming for the provision of the English (which

is the Canadian) law either theoretical perfection or a practical comprehensiveness wide enough to do complete justice in every conceivable case, believes that he is 'justified in maintaining that it is as safe and satisfactory a working rule as has yet been devised.'

The rule of the law is not whimsical or capricious, it was carefully thought out by men of great ability and with a full sense of their responsibility. Before it is changed there should be very good ground shown—not a sporadic case here and there; these the Executive at Ottawa are expected to look after.

The law is plain—the accused is not to be convicted if the act were done or omitted by him "when labouring under natural imbecility or disease of the mind to such an extent as to render him incapable of appreciating the nature and quality of the act or omission and of knowing that such an act or omission was wrong."

What change is desired in the law? The comments of a Scottish newspaper are quoted and apparently adopted as showing some injustice or fault in procedure somewhere. Apparently the writer imagines that a British judge must content himself with considering what counsel argue,—the fact is, and all Britons should be proud of it, that whatever counsel may say, it is the right and duty of the British judge to bring to the attention of the jury all the reasonable ground of defence an accused has. There is nothing in the reports to show or to indicate that the law or the practice was differently understood by the two judges, and for an editor to comment on the fact that one prisoner was declared insane and the other was not is simple silliness. The facts were different and it would be just as sensible to comment upon the fact that one chauffeur was convicted and another acquitted of manslaughter.

The crux, the apparent object of the address, is that "an independent medical commission of recognized Psychiatrists be appointed in all mental cases to calmly investigate and lay the results of their investigations before the Attorney-General, the judge and jury . . . probably the appointment of a permanent Board of Experts would produce the most satisfactory results." This kind of proposal comes up every now and then: always by medical men, never by "the chemist . . . the engineer or any other branch of science."

It is suggested that the "Crown" should appoint a Board. That means the existing Ontario Government should select a number of professional psychiatrists. "Who should be the final authority." Who would be satisfied with such hierarchy? Would the psychiatrists who were left off be content with their inferior position? When a change of Government came about

would not the Tories give place to others, or the Grits, or the Progressives? Will those passed over not say "Who made thee a Prince and a Ruler over us?" Would anyone who did not himself expect to be on such a Board advocate it? And would the Commission agree amongst themselves? If I were to be asked to select such a Board, I should certainly choose Dr. Ryan and Dr. Beemer, but they might disagree as they did over Fraser a few years ago. And had it not been for the extraordinary statement that "Psychiatry is now an exact science" I would not think that either would consider himself infallible

A Medical Journal suggests that the opinion of a majority should govern. Why? Are majorities always right? Does it not often happen that one in the minority is wiser? I remember defending a prisoner at Cobourg: seven medical men swore that my client was malingering. Dr. George Waters alone said he was insane. The majority carried the day; the prisoner was convicted and sent to Kingston, in less than a week to be removed to the Asylum for the Insane. The one man was right and the, apparently, eminently capable. were wrong.

The findings of Psychiatry are said to be as scientific and as accurate as the findings of the chemist . . . the engineer or any other branch of science.

Not long ago I cross-examined a number of expert chemists, sending the others from the room while one was being cross-examined. They had all the same story, but in cross examination they all gave way but one, who had an inkling of my point. He stoutly contradicted what his colleagues had said on cross-examination.

Engineers constantly differ, and differ almost diametrically, scarcely a technical case in hand but experts will swear one way or the other.

Suppose the decision of a majority or all the proposed Board should be adverse to an accused: is he to be prevented from cross-examining and from calling other psychiatrists to give their opinion? Should one side in the Fraser case have been compelled to abide by the conclusion of Dr. Ryan's lot and not be allowed to call Dr. Beemer's? If the finding of the Board is not to be conclusive, of what possible use is it?

The proposition is that the judge or the jury is to be relieved of their function to determine fact, and that an appointive body of experts, responsible only to the Government of the day, shall take their place.

As the law stands now, the Court may in civil cases obtain the assistance of scientific persons the better enabled to determine any question of fact and may act on the certificate of

such persons. It is suggested that the Court must act on the certificate of persons on the appointment of whom neither the Court nor the parties to the action have anything to say.

I am satisfied that no Attorney-General would think for a moment of introducing any such measure, and that no legislature would think of passing it,—at least as long as medical expert evidence has its present reputation.

In criminal law, it is the practice if there be any real reason to suppose that an accused is so mentally affected as to be irresponsible in the view of the law, to appoint one or more expert medical men to examine and report. This practice is valuable, but no one has ever suggested that their opinion should be considered final—if a trial is had, they may be examined and cross-examined.

If psychiatrists are to have a Board, so should fracture experts, tuberculosis experts. In Court the other day I heard two T.B. experts swear that a certain man had T.B., one that he had not, and a fourth that he didn't know. So, too, chemists, engineers, builders, automobile experts, and every other of the myriad kinds of experts—the law is no respector of persons.

Is not the real difficulty the variance of expert evidence, much of which is to be expected from the very nature of expert evidence, i.e., opinion evidence, but not a little from the want of knowledge and sometimes want of honesty of the witnesses themselves. The old gibe of the three kinds of liar, "the liar, the d—d liar, and the expert witness" is not always and wholly without its truth: but if medical witnesses keep "in mind but one ideal, the dignity of medicine and the majesty of justice," the scandal will abate and no one will think a Board at all necessary or desirable.

Selected Article

A Half Century of Public Health*

STEPHEN SMITH, A.M., M.D., LL.D.

All I can say is a simple "Thank You." In all my career no honor has come to me that I will cherish more than this.

To attend the semi-centennial anniversary of the Public Health Association and my own approaching centennial, at one and the same time, is an event not hitherto recorded.

Few, if any, of my associates in the great struggle which gave to New York City the Metropolitan Health Law and to the world the American Public Health Association are still living, but "their works do follow them."

The Health Law and the Public Health Association, united as they were in their primary functions of establishing scientific sanitation, planted the tree whose leaves are for the healing of the nations. I may say with Job's messengers, "I only am escaped alone to tell thee." New York City, then recorded as one of the unhealthiest cities of the civilized world, took the initiative steps in introducing scientific civic sanitation. The code of health ordinances which the metropolitan boards created is unrivalled. The results of its operations in reducing the death-rate were simply incredible. The health commissioner characterized it as "tremendous."

The death-rate gradually fell from 38 per cent., as it was when I began, to 12 in the 1,000 population, a saving of 70 per cent. of the lives formerly sacrificed. But this is not all that the new system is accomplishing in conserving the public health of New York City, for only recently the health commissioner announced that the annual death-rate for a certain week had been as low as 8 per 1,000 of the population, which is not only a tremendous result, but it places New York City second, if not first, among the healthiest cities of over a million population in the civilized world.

It is interesting to notice that the tremendous decrease in the death-rate occurred during the increase of the population of the city from one to six millions. How completely does

* Address delivered at a banquet in honor of Dr. Smith, New York, Nov. 15th, 1921.

this fact controvert the recent public statement of a prominent clergyman of this city that the "nerve-racking life of New York is not conducive to health and longevity." The very opposite of this statement proves to be true. It is among the people most engaged in the nerve-racking activities of business that we find vigorous health. Few, if any, persons die of too much activity, while thousands lose health and life by the slowly disintegrating process of idleness.

This opinion is based on the quite universal movement among the people to encourage all forms of organization for the protection and promotion of the public health. The child-welfare societies are saving the babies even from their pre-natal state through babyhood. Childhood in its development is becoming more and more subject to expert supervision at every stage. The life extension societies and rural clinics are subjecting every grade of the people, and at every age, whether sick or well, to rigid diagnostic examinations in order to discover incipient disease and anticipate treatment in its early stages and most curable periods.

One of the most important and far-reaching public health measures for the future is the standardization of the health value of every variety of human food, and precise directions as to their uses in health and disease.

In view of these evidences of a great awakening of the people of the entire country to the importance of health and to the fact that it is their first duty to secure it, I would suggest that it is incumbent upon this Association to seize the opportunity of placing the public health on a more scientific basis. We have too long been content with the false code of the Mosaic law that limits life to three-score years and ten, with a possibility of reaching four-score years.

The falsity of this law was verified by Moses himself, who lived forty years over his own allotted time and died apparently in good health, for it is written, "his eye was undimmed and his natural force unabated."

We are living under entirely different conditions, with a basic principle of life fixed by the unalterable precision of science. Biology teaches that the normal and potential life of man is one hundred years; that every child born is adapted in physicial construction and function to live a century. We must, therefore, infer that, in the natural order of life, all deaths occurring at an earlier age are due to conditions existing which are not compatible with the construction and functions of the human organisms. In these scientific facts we find the present duties and opportunities of this Association.

I submit that, on this Jubilee day, we should inaugurate the new era in life-saving by moving forward thirty years—our standard for the length of life, and we should summon the sanitary officials and the people to rally round that standard, now permanently fixed by the immutable deductions of science.

Let us prepare a new standard of our work, detailing in simple language which all can understand, this gospel of lengthened life—life that suggests immortality. We seem to be standing on the threshold of a warless world. The nations are vying with each other in getting rid of their implements of war and eradicating the causes of war.

Let us, then, at this most auspicious time, send our messengers into every nook and corner of the whole wide world, proclaiming in schools, churches and legislative halls, by word and press and film, this new scientific standard of long life.

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Editorial

Old Age

So far as we know no one has been able to give a definition of old age which is satisfactory. Osler quite disturbed the world with his comments on the ages of forty and sixty. In speaking of the age of sixty, his remarks were partly humorous, especially as to chloroform. We are not certain that any one has ever exactly understood what he meant as to the latter age, but he certainly implied that a man at sixty-one or sixty-nine was not as good as he had been at sixty, and yet, strange to say, he himself did more work in his sixty-ninth year than he did in his fifty-ninth, and when seventy he delivered the greatest address of his life.

The *Toronto Globe* tells us that the term "old age" is a misnomer, when applied to men like Viscount Bryce. The *Globe* also thinks that old age is a state of mind, and it never overtakes the man who is able to keep his mind in training. If this is not exactly the truth, it is certainly not far from it. Lord Bryce published one of his greatest books on democracy when eighty-three years of age, and in his eighty-fourth year he delivered one of the best speeches in the House of Lords during the great debate on the Irish question. For about one month after that he was apparently enjoying his usual health when death came suddenly and quietly, almost without warning.

It is considered quite normal in Great Britain to have men doing their ordinary work in the eighties. Gladstone delivered one of his most powerful orations in his eighty-sixth year. Sir Hermann Weber brought out the last edition of his book when ninety-five years of age, when he was in full bodily vigor, both mental and physical. We have men on this continent who have long passed eighty who do not consider themselves old. For instance, at the last meeting of the American Health Association, Dr. Stephen Smith, aged 99, delivered a very interesting address, which we publish in this issue. W. W. Keen, the greatest Philadelphia surgeon, is still young at 85.

In Canada we have plenty of men over eighty, who are not old in either mind or body. In Hamilton, Adam Brown at ninety-five, is only commencing to grow old. Last year, at the age of 94, he resigned his position as postmaster.

Mr. John Catto, of Toronto, at the age of 87, is one of our most active and brainy business men. Mr. John Ogilvie, of Montreal, formerly a director of Molson's bank, and a very prominent business man, at present ninety-seven years old, is strong in mind and body. So far as his habits are concerned, it is interesting to note that he is an inveterate smoker.

Lord Strathcona was an active member of parliament from the age of sixty to seventy-six, when he was appointed High Commissioner of Canada, with very onerous duties and very strenuous work, which he performed faithfully and well, until he had passed the age of ninety, when he resigned.

The Teaching of Medicine

We publish in this issue an interesting article by Dr. (LL.D) Pritchett, President of the Carnegie Foundation. Dr. Pritchett called himself a layman, and is so, technically, but he has a very intimate knowledge of the teaching of medicine, and is greatly interested in science and research in connection therewith; but, as we understand it, he believes that the teaching of medicine is losing its proper balance.

He thinks that medical teaching is now weaker than instruction in other professional schools. Teachers of medicine are giving too little attention to the art of teaching. There are also weak points in the curriculum,—Anatomy, Physiological Chemistry and Pathology are taught alone, while the study of medicine and surgery should go along with those fundamental sciences.

He has also something to say about medical research. His words are worthy of careful consideration. We desire to say that the full text of Dr. Pritchett's address, which is a rather long one, may be found in the *New York Medical Journal,* Jan. 4th, 1922.

Apart from what Dr. Pritchett says, we desire to point out that probably the largest and most popular medical school in North America to-day is the Palmer School of Chiropractors at Davenport, Iowa, called by its admirers, the "Mother School" or the "Fountain Head." We are told by Dr. C. Dock, of Saint Louis, in the J.A.M.A., that he visited this school, in April 19. There were then 3000 students and members of the staff told him that they expected the number would soon be 5000. Dr. Dock had the impression that the students were enthusiastic—not well educated or highly cultured, but on the whole an attractive body,—all imbued with a thorough conviction that theirs was the greatest school of medicine in the world.

Faulty Food

Dr. (Col.) McCarrison's *food talks* even when faulty are always palatable. One of his best was published in the J. A. M. A., January 7th. He expressed the opinion that much of the gastro-intestinal disorder of civilized people is due to faulty food. It is estimated that 25% of all patients attending certain clinics in England were suffering from gastro-intestinal disorders. While studying the pathogenic organism as causes of disease we are apt to overlook the dyspeptic and the sufferer from colonic disease because, perhaps, the dyspeptic rarely dies of dyspepsia nor the subject of colonic disease from colonitis.

Fortunately, the attenion of investigators has recently been directed into new channels of inquiry which take cognizance of the influence of negative as well as positive factors in the production of disease. As usual in any new development, advance has been made along narrow lines but we are beginning to appreciate the wider significance of the negative factors in the production of disease. Chief among them is food deficient in some ingredient such as vitamines, protein, iodine, phosphorus or calcium. Then metabolic harmony ceases and "deficiency disease" results. Such disease results not merely from deficiency of vitamines but deficiency of any essential requisite of a perfect food. Lack of balance of the food is a fault second only in importance to actual want of some essential ingredient.

We find that as a rule "primitive people" are content with natural foods—milk, eggs, grains, fruits and leafy vegetables, while those living in highly civilized communities are not contented with the unsophisticated foods made in Nature's laboratory, with "herbs bearing seed" and with "every tree in which is the fruit of a tree yielding seed."

Colonel McCarrison thinks we have three duties, (1) to instruct the masses as to what to eat, (2) to apply the results of science to the production of natural foods and to their distribution rather than to the erection of institutions for the treatment of maladies due to their want, and (3) to continue to pursue our investigations regarding food values.

The Health of the People

We are told by various officers of health that there was less sickness than usual during the winter—at least up to the month of February. The *Rhode Island Medical Journal* for January expresses the opinion that the world, or certainly Rhode Island, is passing through an epidemic of health. In discussing the reasons for this condition it states that, according to the opinion of some, the serious epidemic of 1918 attacked such a large proportion of the people that those who escaped the disease were usually immune to all respiratory diseases as were also those who survived the influenza attacks. The Journal thinks, if this is so, the prospects for the physician in the future are not bright, because it will take almost a generation to build up a race of susceptible victims.

Others claim that it is evidence of the conservation of Nature. The Great War depopulated the world to such an extent that nature must do something to counteract this loss. Still others consider that it is far more reasonable to conclude that our own profession can claim some credit for the improvement in the health of the people. Our great efforts towards the prevention of diseases for many long years are now bearing fruit in the way of excellent results. If the latter is the true explanation it illustrates the truth of the remark made by former President Eliot, of Harvard, to the effect that the medical profession was the only learned profession that was trying to eliminate itself.

Medical Faculty, Toronto, Six-Year Course

It seems very necessary that the six-year medical course of studies as laid down by the Medical Faculty of the University of Toronto should now be subjected to careful examination and criticism. The University of Toronto is a public institution, and, as such, should have its actions scrutinised.

The first point to be considered is the matriculation. On page 28 of the calendar for this year and 1912 we find a very confusing statement of facts. It is said that "The subjects for matriculation in Medicine will be:

Part I.—Pass Matriculation."

and on page 29 we read:

"Part II.—Honour Matriculation."

Now with all due respect to those who prepared the calendar, we maintain that the foregoing clearly lays down two standards of entrance, though we are informed that it was and is the intention that there is to be only one, namely, that of taking both parts of these examinations. On page 29 we find these words—"Candidates for matriculation in this Faculty are advised to take the Complete Part I at one examination, and in a subsequent year, Part II." Now, this means absolutely nothing but a bit of advice; in other words, that the student is *advised* to take the honour matriculation. There is nothing obligatory about it.

Let us see what Webster's International Dictionary has to say about matriculation. "Matriculate" is thus defined—"To go through the process of admission to membership, as by examination and enrollment in a society or college." "Matriculation" is thus defined—"The act of matriculating, or state of being matriculated." Clearly matriculation means that act of securing the standard of entrance to a college. On page 28 of the calendar these words are found: "Part I.—Pass Matriculation." Anyone, therefore, who has this standing could claim admission as a medical student. In this view we are confirmed by others.

Among the subjects for pass matriculation and honour matriculation we find algebra and geometry. These may be allowed because they have so long been regarded as part of an ordinary liberal education, though geometry for a medical education is quite useless. But when we turn to honour matriculation we find trigonometry added on. We are bound to say that this subject is absolutely worthless to any medical practitioner. The easiest books on trigonometry would be Lacke's or Todhunter's, and these books are by no means light

study. But when mastered there is not one principle or formula that can, by any chance ever come to be of any use to a person who practises any branch of medicine or surgery. We speak from knowledge; we have studied trigonometry. For those following astronomy, surveying, or railway engineering, trigonometry is useful, but not to the doctor. Harvey, Margagni, Gross, Lister, Sydenham, etc., knew nothing of this subject.

Let us now pass on to some of the subjects of the six-year course of the optional group. Among these we find English, History, Scientific French, Scientific German, Mathematics, Political Economy, Philosophy, Psychology, Chemistry Physics, Biology, (Heredity and Eugenic) Economics and Sociology, Logic and Theory of Method, Practical Dietetics (Household Science), Comparative Anatomy, Sanitary Engineering, Sanitary Chemistry, Protozoology, Statistics (Actuarial Science), and the Calculus, for those taking up Bacteriology.

Such a list of optional subjects is enough to make the entire medical course ridiculous. Certain hours are left free from the regular subjects of the medical course, and the students are urged to devote these spare hours to the study of the foregoing subjects. We have already said the easiest books on Trigonometry are Todhunter's, and Hall and Knight's; and these books are by no means easy, and would consume a vast amount of time to master them. When mastered, they would prove absolutely useless. Then we turn to Actuarial Science. Here one enters upon a most extensive field of Mathematics. The various tables of mortality, the probabilities of living and dying, the application of interest in the making of calculations, the many problems in annuities and premiums, the formation of the commutation columns etc., would entail a vast amount of labor and time. Then when we turn to the Calculus we are simply staggered. What use the Calculus can be in the study of Bacteriology is more than a puzzle to one who has studied both. The most junior books on the Calculus are those by Thompson, Osgood, and Phillips, and any one of these books would call for long and ardent study to acquire even a minor knowledge of its contents. When all this labor has been given to the subject, the results are of no conceivable value. The methods of reasoning in the Calculus and its intricate and complicated formulæ are of use only for those who are following certain phases of the higher Mathematics. In Medicine they are worthless.

But we are not through with this farce. In the spare hours that the authorities have seen fit to grant to the students, they are supposed to devote some of them to Political Economy

(Economics and Sociology). How a doctor is going to use this in his practice is a mystery only known to those who formulated the course of studies. Such a study might be of some use if the young doctor aspires to political fame in some constituency. Then another subject with which, as light reading, the student may beguile away some of his leisure hours, is Philosophy (Logic and Theory of Method). Just think of Plato, Kant, Hegel, Malebranche, Spinoza, DeCarts, Cousin, Hamilton, Ferrier, Jevons, Green, Mill, Hobbes, Cicero, MacKenzie, Aristotle, Spencer, James, Locke, Creighton, Berkely, etc., as the delightful treats in store for an odd hour. These are all great books, but they are not, in any sense, parts of a medical curriculum.

But the student of Medicine has still another subject for his spare hours. He can take up Practical Dietetics or Household Science. When we turn to the Arts Faculty calendar, page 160, we find that the department is entirely under the tuition of ladies. Under the subject of Dietetics it states that lectures are given, and also "methods of investigating the kind and amount of food required under varying conditions are discussed." But the medical calendar states that it is "Practical Dietetics," that the students have to study. If this means anything it means that they must go into the kitchen and learn how to make a plateful of porridge, how to prepare a custard, or how to get ready a cup of beef tea. Dietetics as a study can be obtained from books. Practical Dietetics is the actual preparation of the food for consumption. We should fancy this would be quite an interesting study for a class of young men in the kitchen part of the building for Household Science, and the study cannot be "practical" anywhere else.

But we have not yet exhausted the list of by-time studies. The student may betake himself in these precious spare hours to the study of history. He can acquaint himself with the deeds, more or less mythical, of the ancient Pharoahs. Or, he may look into the achievements of the Sassanians; or the wars of the Babylonians; or how the Assyrian Empire rose and fell. He may go far back and from the early books of India find out all about the ancient Hindus, and their wonderful language, the Sanskrit. He may read about the struggles around the walls of Troy—a war caused by the stealing of a beautiful woman. If he is fond of light reading, he can betake himself to the several volumes of Gibbon, on the Roman Empire. Rollin's many volumes on Ancient History would be very suitable for an odd hour. In Mediæval History he can find

ample material in Robertson, Taylor, Hallam, etc. If he is fond of the history of the Indians of this continent, he can read Parkman and Cooper. But enough to show what a wonderful range of study has been left for a few spare hours.

Let us, for a moment, look at some of the statements made for the encouragement of the student. On page 34, we find this: "The student . . . is advised to devote a certain proportion of his optional hours to the study of such subjects of general knowledge as will assist in providing him with that breadth of outlook and catholicity of interests which will enable him to enter with intelligence into the life and interests of the communities with which he may find himself associated." This seems fine on paper, but in practice this combining of a medical and a literary training will prove a complete failure. The newspapers will do more to fit the doctor for his environment than any smattering in History or Economics he may learn while a medical student. For those going into general practice the calendar on page 35 states: "That his profession will be at least as much a branch of social service as of technical scientific practice, and that upon a number of occasions in his career he will likely be called upon for advice and guidance in matters in which not only his medical skill and knowledge will be involved, but also social, ethical and economic factors, a right understanding of which will often enable his services to be very much more effective." The statement then goes on to remark that he should "acquire some measure of knowledge of the leading principles of Ethics, Economics, including Sociology."

Never in the same number of words was there more nonsense. The study of Ethics and Economics is a most extensive field. Then what system of Ethics and Economics is the student to study? Who is to decide? Fatalism, Determinism, Hedonism, Utilitarianism, Necessitarianism, free will, what?

News Items

The Profession in the United States

There is a great feeling of unrest among the physicians of the United States, both as to medical politics and the teaching of medicine. We find in the *Medical Record,* Jan. 21, a letter signed "Medical Advisory Committee," from which we quote as follows:

"To the members of the medical profession: The public and professions are being sold out to, (1) foundation control of 'full-time' medical education, (2) lay board domination and the 'closed-up' hospital, (3) socialized state medicine, subsidized community health centres, and hospitals under university or political control, (4) legislature dictation of therapy and fees, (5) demoralization of medical standards by the expansion of cults, (6) exploitation of the specialities by lay technicians."

The committee in thus writing to the profession is really criticizing certain actions of the American Medical Association.

Jewish Hospital in Toronto.

Toronto will soon have a Jewish General Hospital. The Lynhurst Hospital, 100 Yorkville Ave., has been bought for the purpose. It is now being renovated and it is expected they will take possession of it in May, and it will be ready for occupation in July.

The Ezras Noshem, or Jewish Daughters' Society, have the matter in charge, but the idea of such a hospital was first conceived by Mrs. Greenberg, 20 Grange Ave.

It is stated that the nurses and doctors—in fact everyone about the hospital, including the cooks, will be Jewish. It will be a haven for the orthodox Jew, and it is stated the bulk of the Jewish population in Toronto is orthodox.

The Brockville General Hospital is becoming overcrowded and it is proposed to take the present nurses' home for private wards, and construct a new nurses' home outside the hospital.

Big Brother Movement

The object of the Big Brother Movement is to "gain for boys who need friends the personal interest of good citizens." Up to the present time they have dealt with over 800 cases. Of the last 360 cases, 160 came from the Juvenile Court, 1 from the Criminal Court, 3 from the County Court, 1 on parole from the Police Court, and 200 "preventive cases." Of these, 201 were discharged, while only 20 were transfered back to court. A significant tribute to the efficiency of the work done during the last year is that the number of "repeaters" was only 34.

There are four homes or clubs on Parliament, Belmont, Shaw and Carlton Streets, but we are told there is a phase of the work not very well known, at what is called "The Great Heart Lodge." This is a home for delinquent boys of school age, which was organized by the Down Town Church Workers of the Church of England.

The efforts of the organization towards providing healthful recreation for the boys, such as camping, games, gymnasium exercises, swimming, selected motion pictures and other forms of entertainment have been most valuable in securing results.

Memorial Hospital

An influential deputation from the City of St. Thomas waited on the Elgin County Council, January 24th, and asked for a grant of $50,000 towards the proposed Elgin Memorial Hospital, which it is estimated will cost about $200,000. The City of St. Thomas has already granted $100,000 towards the project.

Dr. J. T. Fotheringham and the University of Toronto

It has been announced that Dr. J. T. Fotheringham has been requested to resume active work on the teaching staff of the Faculty of Medicine.

It was reported in Quebec about the middle of February that the Provincial Legislature was establishing a new portfolio of Public Health to replace what had been known as the Superior Board of Health. It was rumored that Dr. E. M. Besaulniers would be the Minister of Health, and Dr. E. M. Savard, who, for some time had been Inspector of the Superior Board, would be appointed Deputy Minister.

The Feeble-Minded of Ontario

One of the finest institutions in Canada is the Ontario Hospital for Feeble-minded, situated on the crest of a slope over-looking Lake Simcoe, at Orillia. It is exceedingly well-managed and the unfortunate patients are enabled to live comparatively happy and useful lives.

During the last year 168 patients were admitted; the total attendance during the year was 1,056—a remarkably large number, considering that the hospital's capacity is altogether 1100. This means that the institution is practically filled all the year around.

The gross maintenance cost for the year was $253,000, which means $240 per patient or about 65c. a day.

The hospital was first started in 1876 in Couchiching Park; in 1885 two cottages were erected on the present site; and in front of these, the main building was erected in 1888.

Charity Bequests in Belleville

The late Thomas Ritchie, merchant of Belleville, who died some weeks ago, bequeathed $40,000 to be used in the erection of a Nurses' Home in connection with the General Hospital of that city. On the death of his wife, a further sum of $20,000 is to be given to the same hospital, a further legacy of $5,000 to the Children's Aid Shelter, and a second legacy to the same shelter for the purposes of assisting in procuring suitable clothing for the children as they leave the Shelter.

Elgin Medical Association

At the annual meeting of the Elgin Medical Association at St. Thomas, January 8th, the following offiers were elected: President, Dr. R. W. Gliddon; Vice-President, Dr. C. R. Mackenzie; Treasurer, Dr. A. McPherson; Secretary, Dr. C. McKillop. Dr. C. H. Gilmour of Toronto was present and delivered an address.

It was announced, December 30th, that McGill University has received what it was expecting for some time, the million dollars which had been promised by the Rockefeller Foundation. We hope the McGill authorities will know how to handle it.

The Semi-Centennial Banquet

A very remarkable banquet was held in New York City, November 16th, by the American Public Health Association. It was in honor of Dr. Stephen Smith, the first President of the Association.

Dr. Welch, who was toast master, said in part: We have come to-night to see and meet the guest of the evening. In calling upon you, Dr. Smith, we, your friends and admirers, bring you the homage of our sincere admiration and grateful appreciation.

We congratulate you upon your wonderful life, now within fifteen months of the completion of one hundred years (that means that at the time of writing Dr. Smith has entered his hundredth year). We congratulate you upon this wonderful life, so full of good deeds and noble achievements. You have said, Sir, that you will consider yourself cheated if you do not attain one hundred years. How much more shall we be cheated if you do not reach this goal.

We hail you, Dr. Smith, as an eminent surgeon, the distinguished sanitarian, the public-spirited citizen, the noble man, who represents the best ideals of our profession and of citizenship. We hail you, Dr. Smith, our leader and our friend.

Dr. Ravenel, the president, read a paper on "The Life and Works of Stephen Smith," and then presented to Dr. Smith a copy of the Jubilee Volume dedicated to him by the association and the gold Semi-centennial medallion bearing his profile.

Dr. Smith, in reply, said: Mr. President, words would fail if I attempted to express my sense of the honor, respect and affection which these tokens indicate. The Jubilee Volume contains a record of work in the public interest unequalled in its beneficial results in human history. This beautiful medallion will be a precious heirloom in my family—ever growing more precious as it passes from generation to generation.

Fatalities in Rugby

In the United States during the last rugby season, ten lives were lost among the players. The majority of those killed were members of high school teams. In former years the death lists were: 15 in 1915; 18 in 1916; 12 in 1917; 10 in 1918; 7 in 1919; and 13 in 1920.

American Science Meeting

The American Association for the Advancement of Science held its annual meeting for 1921 in Toronto, in December. They came on the joint invitation of the University of Toronto and the Royal Canadian Institute, this being the second meeting of the society held in Toronto. The meeting was successful in all respects and we are pleased to announce that Professor Playfair McMurrich of the University of Toronto was elected president.

Dr. E. N. Cootes, who has been a prominent physician at Agincourt, in Scarborough Township, for fifteen years, has been appointed Superintendent, Freeport Sanitarium, Preston, Ontario. Before leaving Agincourt, Dr. and Mrs. Cootes were tendered a public reception in Knox Church and were presented with a cabinet of silver. He took a very keen interest in education, and was largely responsible for the building of the public library in Agincourt. During the war, Dr. Cootes served in the R.A.M.C., at Gallipoli and Egypt.

We are glad to welcome our old friend, Dr. John Hunter, who, after spending a year in California, has returned to Toronto, and we are glad to announce that he has been re-elected a member of the Toronto School Board.

We are glad to announce that the grand old educationalist, William Houston, has also been re-elected a member of the board. He is not exactly a doctor, but is very well known to the medical profession of Toronto.

Mr. W. C. Good, who at the recent Dominion election was the successful candidate in Brant County, has been appointed a member of the Board of Governors of the University of Toronto in the place of John Hoskin, K.C., deceased. Mr. Good is a farmer by profession, a progressive in politics, a graduate in Arts of the University of Toronto, and has always taken a deep interest in his *Alma Mater* since graduating. He possesses good ability and is an excellent platform speaker.

Personals

Dr. Smirlie Lawson, of Toronto, has been elected president of the Interprovincial Football Union.

Dr. Norman MacLeod Harris, after an absence of nearly four years overseas in the C.A.M.C., has retired from military work and has become chief of the Division of Medical Research of the Dominion Department of Health.

Dr. John E. Montgomery has commenced practice in Ladysmith, B. C.

Dr. Fred I. Dey is practising in Winnipeg, Man.

Dr. Fred S. Baines has been appointed physician on the staff of the Public Health Department of Toronto.

Dr. Lucy Neelands has commenced practice in Forest, Ontario.

Dr. Wm. S. McClinton is now doing post-graduate work in London, England.

Dr. George S. Jeffrey was appointed physician at Burwash Prison Farm, in June, 1921.

Dr. G. B. Dickson, Los Angeles, Calif., has been appointed Supreme Physician of the I.O.F., succeeding the late Dr. Thomas Millman of Toronto. Dr. Dickson is a prominent Oddfellow in the United States, and was, at one time, medical director of the Mutual Life Insurance Company. He has lived and practised medicine in Los Angeles since 1887.

Dr. V. H. MacWilliams has been appointed a member of the staff of the Public Health Department, Toronto.

Dr. Frank E. Pettman has removed from Adelphi, B. C., to Barons, Alberta.

We learn from the University of Toronto Monthly that Dr. Frank M. Walker (M.B. '13) and Mrs. Walker (nee Agnes Merle Young, M.B. '16) are now living at Alliston.

Dr. Fred F. Tisdall has returned from Baltimore and is now practising in Toronto.

Dr. G. B. Smith, of Toronto, is spending the winter at Hollywood, California.

Dr. W. H. B. Aitkins, of Toronto, returned to his home and office, February 16th, after a month's trip to Panama and the West Indies.

Dr. Jas. A. Robertson and his son, Dr. Lorne Robertson, both of Stratford, sailed from New York for Naples, February 18th.

It was officially announced, January 10th, that Dr. (Maj.-Gen.) John T. Fotheringham, of Toronto, had been appointed honorary physician to His Excellency, the Governor-General.

M. H. Aikins, B.A., M.D., M.R.C.S., Eng.

AN APPRECIATION.

Dr. Moses Henry Aikins died at his residence, Burnhamthorpe, Ontario, on December 19th, 1921, in his ninetieth year.

In 1820 his parents, who were of North of Ireland extraction, acquired the two hundred acre farm, near Burnhamthorpe, where the Doctor was born in December 1832.

He conducted his literary studies in Victoria College, Cobourg, from which he graduated in the Arts Faculty with distinction in the year 1855.

His earlier medical studies were had in Toronto and Philadelphia, respectively. With his graduation in Medicine from the University of Toronto, in 1858, he was awarded the first silver medal ever given in the medical faculty of the same.

He had for teachers in Jefferson Medical College (Philadelphia) such distinguished men as Gross, Pancoast, Dunglison, Meigs, Mitchell and others, and his frequent reference to them in after life showed the extent to which their teaching had impressed him.

In England, in 1858 and 1859, he attended Guy's Hospital, and obtained membership in the Royal College of Surgeons at that time. He accounted it good fortune to have had opportunity to attend lectures and clinics under Sir William Gull, John Hilton, Birkett, Owen Ress and others, and his later life was moulded largely upon the preponderating influence exercised upon him through their ministrations.

With his return to Canada in 1859 he went back to the old homestead to care for his aged father in his declining years, and began the practice of medicine at Burnhamthorpe, a retired spot in the country, where he spent a long and active life, and where he died a few weeks ago.

In his long career he was a constant and an ardent student, and, generously aided by nature with an excellent memory, accumulated a treasure house of information, to which he could resort, for purposes of consultation, or when emergency required.

He was able, in the midst of a large and exacting practice, to devote time to the needs of his Alma Mater, in the medical faculty of which he was for many years Profesor of Anatomy.

In his chosen profession he was commanding. In the community in which he resided, his professional judgment was held almost in reverence. He was less serious than thoughtful, always earnest, far from lacking, however, in sense of humor, in his disposition kindly, and "in his simplicity, sublime".

Socially he had few intimates and, in some ways, may be said to have "ploughed a lonely furrow." This did not, however, serve to narrow his sympathies, which, through his long life, found opportunity for daily expression in the suffering of others.

He had long and consistently borne in mind that the "brotherhood of man" stood for something more than mere formal declamation, and only, when it was beyond his power to hear the plaudits, did he let it be known to the public that his sympathy with religion, philanthropy and education had taken tangible expression in the noble benefactions with which he saw fit to endow them.

In the character of his life, quiet, gentle, unobtrusive, in devotion to duty which ever distinguished him, in his parting desire to make large provision for the needs of others, he leaves "a monument more lasting than brass."

Editor's Note: The late Dr. M. H. Aikins willed something over $350,000.00 to four public causes: Hospital for Sick Children, Toronto General Hospital, Victoria University, and the Salvation Army.

Society Reports

Academy of Medicine, Toronto.

On the evening of Tuesday, January 31st, a meeting of great interest was held at the Academy, when the bronze tablet to the memory of those Fellows who died on active service and those who served overseas during the Great War was unveiled and presented to the Academy. The presentation was made by Dr. N. A. Powell, Chairman of the Hospital Supplies' Committee, through whose instrumentality the tablet was prepared. After the invocation prayer by Provost Seager, of Trinity College, the tablet was unveiled by Mrs. R. T. Noble. Dr. Edmund E. King read the names of those who had died and the last post was sounded.

On the same occasion the portrait of Dr. J. A. Temple was formally presented to the Academy.

Dr. Edmund E. King presented a series of photographs of prominent, former members of the Profession in Toronto. Dr. J. H. Elliot, Dr. N. B. Gwyn, Dr. Shuttleworth, and Dr. G. W. Ross presented some old medical books of rare interest.

The regular stated meeting for February took the form of physiological demonstrations by the Department of Physiology, of the University of Toronto. A programme was arranged through the courtesy of J. J. R. Macleod. The following papers were presented.

(1) Spread of Temperature Changes in the Body following Hot or Cold Applications to the Surface; by J. J. R. Macleod and N. B. Taylor.

(2) The Effect of Pancreatic Extracts on Blood Sugar and Urinary Sugar in Experimental Diabetes; by F. C. Banting and C. H. Best.

The following demonstrations also were given:

(1) Some fundamental experiments demonstrating reciprocal Innervation; by J. M. D. Olmsted and W. P. Warner.

(2) The effect of various substances on the Mammalian Heart perfused outside the body; by E. C. Noble and J. Hepburn.

(3) The Colorimetric Method for determining the H-ion Concentration of Blood; by J. K. Lachford.

(4) Blood Flow Measurement in the Hands; by N. B. Taylor.

On Thursday, February 23rd, the Ontario Radiological Society held an afternoon meeting at the Academy under the Chairmanship of Dr. H. M. Tovell, President of the Society. At this meeting the following papers were presented:

(1) Classification of Pulmonary Tuberculosis from the X-ray Standpoint; by C. D. Parfitt and D. W. Crombie.

(2) Radiological Diagnosis of Genito-Urinary Conditions; by L. R. Hess, Hamilton.

(3) Some Interesting Abdominal Conditions in Children; by A. H. Rolph.

In the evening, at a special meeting of the Academy, Dr. Frederick H. Baetjer, Associate-Professor of Roentgenology, Johns Hopkins University, gave a most interesting and illuminating address on "The Radiology of Diseases of Bone."

Obituaries

Wm. Sloan, M. D.

Dr. William Sloan, a well-known physician of Toronto, died at his home December 25th, aged 90. Dr. Sloan graduated from Victoria University in 1865, and received his license to practise from the Provincial Board the same year. He commenced practice in Blyth, Huron County, where he soon achieved success. Getting tired of country practice, he removed to Toronto in 1891. He and Mrs. Sloan celebrated their diamond wedding in March, 1919. He was a successful physician, a man of high character, and very much respected by all who knew him.

Sir Arthur Pearson.

Sir Arthur Pearson, of England, the well-known publisher and founder of St. Dunstan's Hospital, was in many ways a very remarkable man. We in Canada were chiefly interested in his work with the blind. He had a firm conviction that the blind should have no assistance and should live in all respects as if they had sight. Although he had a valet he bathed, dressed and went about his house unattended. Unfortunately, however, the observance of his own guiding principles brought to him a tragic death. December 9th. While in his bath he slipped and struck his head against a faucet. Being stunned by the blow, he fell in the water and was drowned.

Alfred James Henwood, M. D.

Dr. A. J. Henwood, of Brantford, died at his home in that city, January 20th. He received his medical education at McGill Medical College and graduated M.D. in 1879. After one year as surgeon on an Allen steamer, and a few months' practice in Chicago he returned to Brantford and commenced practice in partnership with his father.

Allen M. Baines, M.D., C.M.

Dr. Allen Baines, of Toronto, a prominent and popular physician, died at his home, January 12th, aged 68. He had been in poor health for about three years, although, at times, especially during the summer months, he rallied and gained strength to such an extent that his friends fondly hoped for a speedy recovery. Notwithstanding the fact that he had a complication of ailments, most of his troubles appeared to be located in his heart during the last two years.

Dr. Baines was born in Toronto, received his preliminary education in Upper Canada College and his medical training in Trinity Medical College, graduating from Trinity University in 1878. He then went to England where he engaged in post-graduate work for nearly four years, mostly in London, but for a short time in Edinburgh. In 1882 he returned to Canada and commenced practice in Toronto.

In his boyhood days he excelled in sports, being one of the best cricketers in Upper Canada College when that institution had probably the best school team that has ever existed in North America. He was in the Canadian team when the great W. G. Grace brought his team of English cricketers to Canada and the United States in 1872. He was, in all probability, the youngest cricketer on the fields at the Toronto match, his age then being 19. As he grew older he took much interest in curling, golfing, tennis, bowling on the green, and fishing.

Although he had received an excellent surgical training, largely gynæcological, in England, his chief work was in general practice, especially in diseases of children. He was, for some time, the physician-in-chief of the Hospital for Sick Children, also physician to the Infants' Home and the Home for Incurables. In addition, he was, for some years, associate-professor of Pædiatrics in the University of Toronto. He had a charming personality and brilliant social gifts, which made him one of the most companionable men who ever lived in Toronto. All these qualities were appreciated highly by his fellow-physicians, his many patients, and his large circle of friends among the laity.

Dr. J. MacDonald, Jr.

The Surgery Publishing Company announces with "profound sorrow" the death of its president, Dr. J. MacDonald, Jr., which occurred January 7th, 1922.

J. D. Bissonnette, B.A., M.D.

Dr. J. D. Bissonnette died very suddenly at his home in Stirling, December 31st, 1921, from hemorrhage resulting from gastric ulcers. He was born July 1st, 1856, and graduated as B.A. from Queen's University in 1880. After teaching some years, he again entered Queen's as a medical student, graduating in 1892. He successfully practised in Napanee, Caledonia and Stirling. In addition to his large practice he was very active in the School Board, Bible Society, and Temperance and Moral Reform League, and was a past President of the Hastings' Medical Association.

William C. Barber

Dr. W. C. Barber died at his home in Annandale, December 12th. He received his medical education in the Toronto School of Medicine, and graduated from the University of Toronto and Victoria College, in 1888.

For a number of years he did service in the hospitals for insane, his best work being probably at Rockwood Hospital, Kingston. During his later years he had charge of the well-known Sanitarium for the Treatment of Nervous Diseases in Annandale, Ontario. Although he was in ill health for some time, his death at the last was sudden and unexpected. Feeling tired, he lay down on a sofa, and, in a few minutes thereafter, his friends found that he was dead.

As a physician he had ability, as a man he was always straightforward and honorable, and, apart from his ability, he had a very charming manner, which made him much beloved by those who knew him intimately.

Franklin Burt, M.D.

Dr. F. Burt died in Honolulu, December 9th, 1921, aged 68. He was educated in the Toronto School of Medicine and graduated, M.B., 1879, and M.D., 1899, University of Toronto.

Fred F. McEwen, M.B.

Dr. F. F. McEwen died at his home in Aylmer, Ontario, December 1st. He graduated from the University of Toronto, in 1905.

William Hall, M. D.

One of the best known physicians, west of Toronto, was Dr. William Hall, of Brampton, who died at his home, December 18th. He graduated, M.D., from McGill University, in 1887. Soon afterwards he commenced practice in Brampton, and was highly successful in every way. He was an excellent physician and exceedingly popular with all classes of the community. The cause of death was diabetes.

Henry Meek, M.D.

Dr. Henry Meek, for many years one of the most prominent physicians of London, Ontario, died at his residence in that city, January 11th, aged 68. He was educated in Trinity Medical College and graduated, M.B., Toronto University, and M.D., Trinity University, in 1878. He then did post-graduate work in Baltimore, New York and in Europe, after which he commenced practice in London, where he was for many years Professor of Gynæcology in the Western University. He had been suffering for some time from heart disease, and was practically an invalid for one year before his death.

David Jamieson, M.D.

Dr. Jamieson, of Whitechurch, died in Barrie after a protracted illness, February 10th, aged 55. He graduated, M.D., from Trinity University in 1896, and shortly after settled in Whitechurch, Grey County, where he practised for about eighteen years. On account of ill-health, he was compelled to give up active work about seven years ago.

Fred J. Wiedenhammer, B.A., M.B.

Dr. F. J. Wiedenhammer, of Waterloo, died at his home after a short illness, in December. He graduated, B.A., in 1896, and M.B., in 1905 from the University of Toronto.

Truman A. Beemanr, M.D.

Dr. Beeman, who practised at Bancroft and graduated, M.D., from Queen's University in 1887, died suddenly in Toronto, February 9th, aged 60.

Homer Mason, M.D.

Dr. Homer Mason, of 119 Annette Street, Toronto, died February 4th, aged 57. He received his medical education at Trinity Medical College, and graduated, M.D., in 1889. He spent nearly three years in London, England, doing post-graduate work, after which he returned to Canada and settled in St. Thomas. In 1900 he came to Toronto, where he practised until the time of his last illness.

Clarence T. Campbell, M.D.

Dr. C. T. Campbell, a prominent physician and highly respected citizen of London, Ontario, died at his late residence, February 2nd, aged 79. Born in London, he began life as a printer, and graduated into editorial work on the *London Advertiser*.

After working some years at journalism he studied medicine and graduated from Cleveland Medical College in 1865 as a homeopathist. In 1866 he secured his Canadian license and began practice in London. He took a very prominent part in Oddfellowship, and was elected Grand-sire for North America. He was elected a member of the College of Physicians and Surgeons of Ontario and was elected president of that body in 1893. He took considerable interest in public matters and was for some years a member of the Public School Board and for one year Mayor of London. He was an excellent speaker and teacher, and, for a time, lectured in the Normal School on Sanitary Science and also at the Victoria Hospital Training School for Nurses.

Alexander Bryson Osborne, M.D.

According to a message received in Hamilton, Dr. A. B. Osborne died in London, England, January 28th. He graduated, M.D., from McGill University. After doing some post-graduate work, chiefly in Great Britain, he commenced practice in Hamilton and was for many years both prominent and popular in that city, throughout Western Ontario, and in other parts of Canada. He was fifty-nine years of age and had been ill for several months. Shortly after graduating he became an eye specialist. Alex. Osborne was one of the best, and the following quotation from the *Toronto Daily Star* will illustrate very well his reputation with the public: "To perform charities in an anonymous way was one of the great joys of his life."

Corelli Collard Field, M.D.

Dr. C. C. Field, a well-known physician of Winnipeg, died at his home in that city, December 28th, after a short illness from pneumonia, aged 52. He was born in Cobourg, Ontario, and received his medical education in Trinity College, graduating, M.D., from Trinity University, 1894. After practising for a few years with his brother in Cobourg, he went to Winnipeg in 1902, and remained in practice there until the time of his last illness.

J. M. Elder, B.A., M.D.

Surgeon-Major John Munro Elder was one of the best of the many good fellows Montreal has produced. He graduated, B.A., 1881, and M.D., 1885, from McGill University. In his student days he was an athlete, especially in the rugby game, and at the same time took a great interest in military matters. After graduation, he commenced practice in Montreal, and soon acquired a reputation as a physician and surgeon, but as time went on he devoted himself chiefly to surgery, was Associate Professor of Surgery in McGill, and Surgeon to the Montreal General Hospital. He went with the Medical Corps at the time of the North-West Rebellion. When the Great War broke out in 1914, he was one of the first of the McGill Professors to volunteer for service and went overseas with the McGill Unit. While on service at the front, he contracted a disease from which he never quite recovered. Not long ago it developed into serious paralysis agitans, from which he died, February 5th.

George Elliott, M.D.

The announcement of the death of Dr. G. Elliott, Toronto, caused profound sorrow among his many friends in all parts of Canada. He was in poor health for about two years, although able to continue at work until something like two months before his death, which occurred February 21st.

Although in his younger years he was strong and robust, he commenced to show signs of arterio-sclerosis about two year ago, which, from the first, appeared to affect his heart especially. He was born in Troy, Ont., and graduated from Trinity University in 1895. He at once commenced practice in Toronto, and, early in his career, took an intelligent and active interest in medical politics, but especially medical

societies. He was, for some years, secretary of the Canadian Medical Association, and his work in connection with that society was admirable and greatly appreciated. He was also, for some years, secretary of the Aesculapian Club, vice-president for 1921-22, and practically president elect for 1922-23. He had literary tastes and did much work in connection with journals, especially the *Dominion Medical Monthly*. He also carried on much correspondence with leading journals in the United States and Great Britain. He was generally recognized as a clean straight man, and was very highly respected and much beloved by all who knew him. The general verdict of his friends and acquaintances may be given briefly: "George Elliott was one of the best." He was less than fifty-eight years of age when he died, while at fifty one would have supposed that he should have lived till he was at least ninety.

Moses Henry Aikins, B.A., M.D., M.R.C.S., Eng.

Dr. M. H. Aikins, a well-known and highly respected physician of Ontario, died at his home, Burnhamthorpe, Toronto Township, Peel County, Dec. 19, aged 90. He graduated B. A., Victoria University, in 1855; M.B. & M.D., University of Toronto, in 1858 and 1888, and became M.R.C.S., Eng. in 1858.

Soon after setting up practice, he became a teacher in the Toronto School of Medicine, in association with his brother, Dr. W. T. Aikins, Drs. H. H. Wright, Uzziel Ogden, W. W. Ogden, Jas. H. Richardson, Michael Barrett, Wm. Oldright, R. A. Reeve, Geo. Wright, Lachlan McFarlane, J. E. Graham and A. H. Wright, etc. His friends frequently tried to induce him to come to Toronto, but he preferred to remain in the old homestead, in the Township of Toronto, among the many friends and grateful patients who greatly appreciated the splendid work he was doing for them, as a general practitioner of the highest type. Very soon after commencing practice, his fame spread beyond Toronto Township, through the Counties of Peel, Halton and West York.

Apart from his high professional attainments, he was a good citizen, and took great interest in public affairs. He was what is known as a *good sport* of the best sort. He was very fond of animals, and dearly loved a good horse. It was generally considered by those well able to judge that he possessed the best stable of roadsters in the County of Peel.

Book Reviews

Surgical Anatomy

(*New Third Edition*)

Surgical Anatomy. By William Francis Campbell, M.D., Surgeon-in-Chief at Trinity Hospital, Brooklyn, N.Y.; Sometime Professor of Anatomy and Professor of Surgery, Island College Hospital. Third edition. Revised. 681 pages with 325 original illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth $6.50 net. The J. F. Hartz Co. Ltd., Toronto, Canadian Agents.

The Third Edition of this work has just come to hand, and is more than a reprint of the other two that preceded. The text has been thoroughly revised and many new illustrations have been added. Dr. Campbell is a teacher of anatomy who is also a surgeon, and his book shows on every page the practical application of the facts learned, which makes it an ideal book for those who are studying Anatomy in order to practise Medicine. At the end of every chapter the surgical facts are arranged in a handy way, making the volume not only intensely practical but exceedingly interesting to the student. The paper and illustrations are of the very best.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, etc., by leading members of the medical profession throughout the world. Edited by H. R. M. Landis M.D., Philadelphia, Vol. IV, 31st series, 1921. Philadelphia and London, J. B. Lippincott Company.

This volume contains the usual number of clinics,—all of them of marked excellency. There are always two or three articles that are outstanding and of these one may mention "Management of Dyspnoea" by Robert Babcock, and "A Case of Diabetes with Tumor of the Brain," by Parkes Weber, (London), who always has the knack of discovering rare cases. There are also many interesting contributions on Paediatrics, and the section on Industrial Medicine improves with each number. This book is one of the most useful that comes to the doctor's desk.

History of Medicine

(New Third Edition)

History of Medicine, With Medical Chronology, Suggestions for Study and Bibliographic Data, by Fielding H. Garrison, M.D., Lt.-Colonel, Medical Corps, U.S. Army, Surgeon General's Office, Washington, D.C. Third Edition revised and Enlarged Octavo of 942 pages with 257 portraits. W. B. Saunders Company, Philadelphia and London, 1921. Cloth, $10.00 net. The J. F. Hartz Co. Toronto, Canadian Agents.

There were few authors on this continent who were in such a favorable position for compiling a work like this, as Col. Garrison, who has not only a well-stored mind, but a facile pen. Although he modestly refers to the book as an introduction to the history of medicine, yet it is so complete that it will satisfy everyone except those who are going to make a specialty of this department.

The period from prehistoric times to the present is covered thoroughly and concisely, but not the least interesting portion of the book, is the detailed activities of the leaders of medical thought still living.

The binding and the letter-press are of the very best and suitable for a volume which is to remain in the library for a life time.

Diseases of the Skin. By Henry W. Stelwagon, M.D. Ninth edition, revised with the assistance of Henry K. Gaskill, M.D., attending dermatologist to the Philadelphia General Hospital. 1313 pages with 401 text illustrations and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, $11.00 net. The J. F. Hartz Co. Ltd., Toronto, Canadian agents.

The new ninth edition of Stelwagon's well-known work on Dermatology continues the high standard maintained in previous editions. As, during the revision, the unfortunate loss, by death, of its author occurred, the work was carried on by Dr. Henry K. Gaskill, with a resulting up-to-date text-book on Dermatology which it is a pleasure to read.

Considerable re-writing has been found necessary in an endeavor to keep down the size of the volume to reasonable proportions and, at the same time, add the necessary new work, but this has been accomplished without in any way curtailing the essentials of the subject.

The references are most complete and add a very distinct value to the book for anyone engaged in any special subject. Many new pictures have also been added. We were rather disappointed in not finding more mention of the important value of Radiumtherapy in modern dermatological practice, a short paragraph only being allotted to this agent. Otherwise, we think anyone will find this text-book to fulfil in every respect the requirements necessary.

Aids to Forensic Medicine and Toxicology. By W. G. A. Robertson, Lecturer on Forensic Medicine, School of Medicine, Edinburgh. Ninth edition. Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden, London, 1922.

This little volume, now appearing in the ninth edition, has been of great help to many generations of medical students. Although compiled for England, the law that is followed is practically the same as in Canada. Everything is stated clearly and put in concise form, so that it is a very handy reference book for the shelf of the practitioner.

Abstract

Radium in the Treatment of Epithelioma of the Lip. By Douglas Quick: Journal of Radiology, December, 1921.

Statistics show that in routine dissection of the cervical nodes in cancer of the lip, metastases were found in only 23.38 per cent. That is to say, many unnecessary operations were performed. The author advocates "an expectant plan of treatment, reserving surgery until a definite node is palpable." The cases reported were treated at the Memorial Hospital, New York. The primary lesions are treated with flat applicators, and in the case of deeply infiltrating lesions, tubes of radium emanation are buried interstitially. External radiation of the neck is indicated in all cases admitted for treatment. Following this, cases without nodes are kept under observation. If nodes are present or develop subsequently, complete unilateral neck dissection is done under local anæsthesia, and tubes of radium emanation are buried. External radiation follows operation. Twenty-two neck dissections have been done: fifteen are clinically free from disease after periods from four months to four years; six have died, one has recently recurred and is becoming worse. Of 92 cases of primary lesions without palpable nodes at the time of admission, 72.8 per cent. are clinically free from disease, and two have died of intercurrent disease, free from carcinoma.

Quick admits that the time factor is still too short to permit of comparison with surgical statistics, but he is convinced that radium deserves foremost place in the treatment of epithelioma of the lip. The patient is very slightly incapacitated, there is little scarring, and, above all, as this treatment carries with it none of the dread of surgery, it is to be expected that patients will come for treatment much earlier in the course of the disease.

The Radium Treatment of Goitre. By D. T. Quigley. The Medical Herald, September, 1921.

This report of radium treatment of goitre is unique in that (1) radium alone is used, and (2) a certain number of cases of simple goitre are included. It is interesting to note

that among the simple goitres treated—seven cases—four showed a reduction of fifty per cent. in the size of the gland, in one there was complete disappearance of the goitre mass, one was not improved and one died from another disease. The results of the treatment of exophthalmic goitre are satisfactory, but at best the paper is but a general sketch of the subject. Its value would be very greatly enhanced if certain cases were reported in greater detail with definite information as to dosage, types of applicators, etc. The writer speaks most enthusiastically of radium treatment, and considers that, in every case of simple or toxic goitre no patient should be submitted to operation without first being given the benefit of radium treatment.

The Treatment of Goitre. By L. A. Marty.—Medical Herald, Nov., 1921.

Three types of thyroid disease are considered, simple enlarged thyroid, cystic or colloidal, and the toxic type. Surgical intervention is advocated for the first two conditions, but, as toxic goitre is a constitutional and not a localised disease, and as it has very serious effects on the heart and nervous system, the surgical risk is very poor. As an alternative, irradiation is advocated. The writer formerly advised X-rays but he now considers radium even better as it can be applied with much less inconvenience to the patient; it may be given in the patient's own room, and it carries with it less danger from burns and from electrical shock. Radiation is, in all cases, associated with general constitutional treatment, and the results show quite definite improvement.

Provincial Board of Health

From the Report of the Chief Officer of Health to his Board, at the close of the year 1921, we extract as follows:—

Dr. R. W. Bell, the Chief Inspector, has supervision of the Epidemiological work and of the Sanitary Inspectors operating in New Ontario, and of all inspection and supervision of lumber, mining and construction camps in the unorganized districts. This work has been particularly heavy, entailing as it does, scrutiny of all medical contracts.

The Division of Laboratories, under the direction of Mr. H. M. Lancaster, has grown to large proportions. In addition to the laboratories in Toronto, London, Kingston, Fort William, Sault Ste. Marie and North Bay, two new ones have this year been established and are now in operation at Peterboro and Owen Sound. The policy of the Board in respect to the laboratories whereby the municipalities assumes the expense of housing and makes payment of $500 for extra equipment, appears to be satisfactory.

The Division of Sanitary Engineering, under the direction of Mr. F. A. Dallyn, carried on numerous sanitary surveys during the past season. By these surveys, we have been able to demonstrate the needs of various towns for more satisfactory water supplies and facilities for disposing of sewage. During the year several large water filtration plants have been undertaken, notably at Kincardine, Peterboro and other places.

The Division of Venereal Diseases, under the control of Dr. R. R. McClenahan, has succeeded in opening thirteen clinics for the treatment of these diseases, and one or two others are just about to be established. The Board works in co-operation with the local boards of health. The Board pays 50 cents a treatment and an additional 50 cents per diem, provides $1,000 for equipment and $500 annually for both doctor and nurse as well as the phenarsenamine which is prepared in our laboratory. Our monthly bill for treatment amounts to between $3,000 and $4,000. The Board continues to receive the sum of $57,478 from the Dominion Government annually for the work of the Division and our total appropriation this year for the Division is $120,000.

The Division of Industrial Hygiene is guided by Dr. J. G. Cunningham, who is laying the foundation of a splendid organization. During the year an investigation in the alleged danger of lead poisoning from painting by spraying apparatus has been made, the incidence of miners' phthisis in the mines of Timmins has been explored and the association of indus-

trial concerns with municipalities in carrying out public health nursing has been instituted in various places. An industrial clinic for the purpose of observing the situation respecting occupational disease has been organized in charge of Dr. Noble Sharpe.

The Division of Maternal and Child Hygiene and Public Health Nursing, in charge of Miss Power, with a staff of some 16 nurses, 8 of whom were financed for a year by the Red Cross, has been successful in inducing some 18 municipalities to provide and pay public health nurses for themselves. Dr. W. J. Bell has been engaged since last spring in organizing Well-Baby Clinics all over Ontario.

The Division of Public Health Education

The Division of Public Health Education in charge of Dr. J. J. Middleton carries a weekly health letter in 214 newspapers published in Ontario. He has charge of all publicity, advertising and exhibit work. The Provincial Exhibit work is carried on in association with the Division of Child Hygiene, with Dr. W. J. Bell's clinic work and with the Division of Industrial Hygiene.

I am pleased to welcome the Board to our new quarters. We are, for the first time in the Board's history, in possession of somewhat adequate quarters in Spadina House. This name is given the building we occupy for the reason that Dr. W. W. Baldwin the founder of Spadina Avenue, the most spacious street in Toronto, and which was laid out in 1813, named his residence at the head of the street "Spadina House" and it seemed appropriate to use the name of his old residence for that of the home of the Provincial Board of Health.

Doctor, do you know the distinctive characteristics of Grape-Nuts?

The cereal food, Grape-Nuts, is made from a mixture of malted barley, whole wheat flour, salt and water; raised by yeast, baked in loaves, sliced, again baked and finally crushed into granules. More than 20 hours are consumed in the various baking processes.

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4. Natural ingredients, in sufficient amounts that resist digestion and give bulk to the intestinal contents.

The results obtained by its use are:

a. Well balanced, satisfying nutrition.

b. Passage through the alimentary tract without physiological stasis, thus avoiding excessive fermentation and putrefaction of the food, with consequent auto-intoxication.

c. Bulk and moisture to the contents of the sigmoid and rectum, thereby inducing normal peristaltic action and avoiding stasis in the bowels.

These are some of the reasons why Grape-Nuts is of such great value in maintaining health and is particularly indicated for the correction of auto-intoxication and the nervous diseases that are exacerbated, if not caused by this condition.

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Selections

Is Follicular Tonsillitis a General Malady?

The common medical belief regarding this disease has been that it is a local malady, any constitutional symptom attending an attack being caused by the absorbed toxins, subsiding as soon as the toxins cease to be formed. Salzmann (*Medical Record,* 1920, 3) and others have recently questioned the correctness of this and now Guisez writes in the *Gazette des Hôpitaux,* July 19-21, 1921, xciv, 57, expressing the same doubt. He says that for the past dozen years his attention has been drawn to the possibility of the constitutional nature of chronic tonsillitis. The type of tonsillitis referred to is chronic, catarrhal, and follicular, the crypts being at times wholly or partly obliterated with retention of the contents. With benign flora thus retained nothing may happen, but when, as often occurs, virulent germs are retained a phlegmon may form, or there may be general infection. The local symptoms may be insignificant so far as the patient himself is concerned, but careful examination will bring out the existence of a disease focus. In addition there are periods in which the patient complains of something wrong, such as pressure sensations or vague pains. There may be induced tenderness on external pressure over the tonsil. Of great clinical value is the redness of the free border of the anterior pillar. Owing to the fact that the tonsils tend to shrink in size after puberty these causes are most apt to appear in late childhood and the prepuberal or early adolescent periods. The condition once established may persist well into the adult period, say beyond the age of 30. The constitutional malady to be outlined is more common in young women.

The disease as studied by the author appears to have very little in common with the focal infection of tonsillar origin which figures so largely in American literature. In the latter, one organ or tissue usually bears the brunt—notably the articular system, and the seat of the focus is not an essential factor in the picture, for this may be the teeth, nasal sinuses, middle ear, prostate, etc. The affection described by Guisez is limited strictly to the tonsil and he barely alludes to other primary foci. The young woman is apparently in inferior gen-

DR. JUNIOR:. "Now, Doctor—look at this dressing, just removed from my patient's neck—or, rather, from his carbuncle."

DR. SENIOR: "Well what is the matter with it? "

DR. JUNIOR: "Why, nothing—only that every Antiphlogistine dressing, removed some hours after its application, shows a moist center, while the periphery of the application which covered the normal surrounding tissues—is always dry. Now, I presume that is sweat——"

DR. SENIOR: "Oh, no, Doctor. If that were the case, the entire under surface of the poultice would be wet, since the heat of the poultice is uniform, you know."

DR. JUNIOR: "Well, then—what is the explanation of the phenomenon?"

DR. SENIOR: "I'm glad you brought that up. That moist center shows where the exudate has been taken from the congested tissues, and is demonstrative proof of the osmotic action of Antiphlogistine, my boy."

DR. JUNIOR: "Well, now— that is something to know—!"

DR. SENIOR: "And furthermore, I have come to consider this 'selective' action of Antiphlogistine, as almost Diagnostic of inflammatory process below the surface where the poultice has been applied."

DR. JUNIOR: "In other words, then, Antiphlogistine, in inflammatory conditions, has a diagnostic as well as remedial value. Odd, isn't it?"

eral condition, looks tired, has no appetite, and becomes fatigued, especially toward evening. She complains of various pains, in the limbs or back chiefly, and these are made worse on standing. She seldom eats before the middle of the day and by 4 or 5 o'clock in the afternoon is "all in." The thermometer, if used at this time, will show a slight elevation of temperature. This fact is evidence enough of a mild infection. Failure to improve with change of scene, tonics, and other reconstituents excludes neurasthenia, anemia, primary debility, and such diagnoses. Recovery following morcellation of the tonsil clinches the diagnosis. Of all the symptoms of slight chronic infection loss of appetite is the most valuable; and after operation the appetite returns and is keen. Among local conditions secondary to these infected tonsils the author notes especially orthostatic albuminuria, cardiac functional disturbances, including pseudoangina pectoris, which will be found described in the works of J. Mackenzie, and certain dermatoses. The author does not speak of the participation of the joints and with the exception of orthostatic albuminura does not allude to implication of the kidneys. His disease picture could hardly avoid overlapping the picture of tonsillar focal infection in some minor details, but the autonomy of each is evident. The distinction may be made as follows: the picture drawn by Guisez is apparently a pure toxemia, while in cases of focal infection the condition is a mixture of toxic metastatic manifestations. Again Guisez is silent on lesions which follow *acute* tonsillitis, and it is in this condition that we most commonly fear the appearance of endocarditis, nephritis, and some of the worst joint affections.—*Medical Record.*

Labor and its Complications

The Induction, Complicated by Hæmorrhage, of Labor.

By E. P. Davis.

The induction of labor has established its place among the most valuable operations of obstetrical surgery. At present in the cases of primiparous patients labor is rarely induced because of contracted pelvis, but is indicated when pregnancy is turning the scale against the patient's general health and the saving of health or life may be hoped for if pregnancy is terminated. Such are cases of disease of the heart complicated by pregnancy, tuberculosis infection com-

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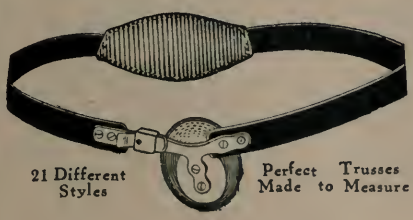

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plicated by pregnancy, toxic conditions not yielding to treatment, and profound disorder of the nervous system greatly agravated by pregnancy.

In the cases of multiparous women induction of labor is indicated more frequently. When the patient has had several difficult labors with children disproportionate to her pelvis; when, after having borne several children, the mother shows a tendency to go overtime: and when severe visceral disease is present, labor is often induced.

In cases of placenta prævia, labor may be induced to advantage when the situation of the placenta is such that rupturing the membranes alone will suffice to control hæmorrhage through pressure by the presenting part.

In fulminant toxæmia, with or without convulsions, termination of labor is indicated only when the patient is practically in, and has largely completed, the first stage. Rupture of the membranes then will be followed by temporary cessation of the convulsions, but these will return with increased violence when the uterus begins to act.

Two methods at present are commonly employed: the stimulation of uterine contractions by: (1) introduction of a foreign body within the uterus or by rupture of the membranes and decreasing the quantity of amniotic liquid, and (2) the administration of drugs.

It has been urged as an objection to the use of bougies that they may separate the placenta or pierce or wound the tissue at the placental site in such a manner as to cause hæmorrhage. In this connection the author states that it can be readily understood that the placenta might be easily wounded by bougies if it is attached unusually low, and that any cause which produces uterine contraction in a toxic patient or one whose decidua is diseased may result in separation of the placenta.

Davis reports three cases of hæmorrhage due to the use of bougies. In the first case a cæsarean section was performed and a chorio-epithelioma was found. In the second case immediate cæsarean section was necessitated by premature separation of the placenta. In neither case did the bougie cause the hæmorrhage directly. In the third case in which the delivery was normal no cause for the hæmorrhage was discovered. In a fourth case, the bougie passed through the placenta but hæmorrhage did not result.

On the basis of his experience the author is inclined to believe that while there is a possibility of serious hæmorrhage, the use of bougies has been the most uniformly successful of

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any method employed for the induction of labor as it produces labor more closely resembling spontaneous parturition than any other.—*Surgery, Gynaecology and Obstetrics.*

The Indications for Operation in Colitis Gravis

(Chirurgische Indikationsstellung bei Colitis gravis). *Jahresb. f. aerztl. Fortbild.,*

By H. Strauss.

Besides the very severe colonic inflammations in which surgery is indicated there are less severe cases which resist long-continued medical treatment. In severe cases operation is not very promising. The possible surgical methods are: (1) the formation of an artificial anus, a method used formerly in Germany but little employed by Strauss because patients with colitis have little resistance to any severe abdominal operation; (2) appendicostomy; and (3) the formation of a cæcal fistula, which should be done only when an appendicostomy is impossible. The operation of choice is appendicostomy.

Correct technique in the intestinal lavage after the fistula formation is essential. The author uses physiological salt solution or camomile tea at body heat for a period of one-half to one hour. The fistula is kept open until examination of the fluid withdrawn demonstrates the absence of pus and blood. Such a successful result may be obtained after a few months in some cases, but in others not until after a period of years.—*Surgery, Gynaecology and Obstetrics.*

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Miscellaneous

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The manufacturers, Parke, Davis & Co., have a booklet on the subject which they offer to physicians.

"Telegraphing" from Trains

By C. T. Crook.

The other day the guard of an express train, being suspicious of the conduct of three passengers, wrote a note asking for the police to meet the train on arrival at its destination.

He threw the note out of a window as the train dashed past a station, and it was picked up, telegraphed to London, and at the end of the journey, the police were waiting on the platform.

The enviable reputation enjoyed by the United States Radium Corporation among the physicians to whom the organization is personally known, probably results more from a combination of causes than from any single factor.

The proved and recognized purity of the radium supplied; the excellence of the service, both in therapeutics and physics, given when desired; an ability to place the physician's personal needs and requirements above the purely commercial interests of the company—these things collectively form the foundation upon which has been built a reputation, of which the United States Radium Corporation is justly proud.

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This a very old, though little-known, form of sending telegrams from express trains, and it has frequently been used in the capture of criminals.

Each message must be weighted, otherwise it would probably be lost in the rush of wind caused by the speed of the train. As a rule the note is enclosed in a bundle of papers, and great care must be exercised in throwing it out of the window.

It is not only in cases of crime that telegrams are sent from express trains. During the summer a woman was seized with serious illness on the return of the Cornish Riviera express to Paddington. The guard searched the train for a doctor but could not find one.

He, therefore, threw a telegram on the line asking for medical assistance at Paddington, and going to the compartment where the patient was lying consoled her by saying that he had telegraphed for a doctor.

Later the guard again went to the compartment. The afflicted passenger seemed greatly puzzled. "How did you manage to telegraph?" she asked. "The train has not stopped anywhere."

But just then Paddington was reached, and there was not only a doctor but also a nurse and an ambulance waiting to relieve the sufferer.—*Over-Seas Mail.*

"That's just like Jim," said the widow, wearily, after a flapping curtain had knocked over the urn in which all that was mortal of her cremated husband had been placed and spread its contents on the floor, "Always dropping his ashes everywhere!"—*Harper's Weekly.*

The ex-Kaiser has another grandson, which causes Punch to compliment the little chap on his pluck.

Love, Marriage and Birth Control

The address on "Love, Marriage and Birth Control" by Lord Dawson, the well-known physician, to the Church Congress at Birmingham on Tuesday last was printed in full in the *Evening Standard* of Wednesday. It was wise, bold, and humane in the highest sense of that word. The speech was also timely, the place well chosen, and the manner plain and authoritative, without being either crude or unduly pathological. The address should be read as a whole. An attempt at a detailed summary might destroy the careful balance which is essential to Lord Dawson's purpose.

ERGOAPIOL (Smith) is a singularly potent utero-ovarian anodyne, sedative and tonic. It exerts a direct influence on the generative system and proves unusually efficacious in the various anomalies of menstruation arising from constitutional disturbances, atonicity of the reproductive organs, inflammatory conditions of the uterus or its appendages, mental emotions or exposure to inclement weather.

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25 West 45th St. NEW YORK

The Marvel Company was awarded the Gold Medal, Diploma and Certificate of Approbation by the Societe D'Hygiene de France, at Paris, Oct. 9, 1902.

We may, however, notice some essential points of the address. Birth control has come to stay, and no attempt to disestablish its hold on the civilized races could be successful. The substitution of abstention was neither practical nor physically justifiable. Here Lord Dawson fearlessly and plainly opposed the teachings of the Roman Church and the *alleged* teachings of the Anglican. He would have nothing to do with the dogma that bodily intercourse is only to be permitted to married persons for one purpose—the procreation of children. He condemned that view not only upon hygienic but on moral grounds, and gave a moving apologia for sexual love and passion which will, we trust, help to get rid of the unwholesome view that the functions of the body can be *per se* shameful and even accursed.

Lord Dawson's view of sexual passion and his implied protest against celibacy as the higher and nobler state are, of course, entirely consistent with the Puritan view of Love and Marriage. Did not Mrs. Hutchinson speak of "the ungodly chastity" of a celibate saint, while Milton's apostrophe to "Wedded Love" in *Paradise Lost* remains one of the most magnificent pieces of passionate verse in our or any language. But though Lord Dawson was so clear and so positive, as was essential, he was aways reasonable and moderate. He sees the very great dangers of birth-control carried to extremes; he recognizes the duty of the good citizen to maintain the race and the miserable incompleteness of the childless unions.

Lord Dawson is strongly against selfish suppression as he is for wise control. In fact, he has had the courage to say what so many men and women have long come to believe. But remember always that children are the best things in the world, and that the sacrifices they demand are the well-springs of true happiness. Elizabeth's cry: "The Queen of Scots has a brave son and I am but a barren stock," has in it the supreme tragic note. So, too, the agonized scorn of Constance at the Cardinal's consolations on the loss of Prince Arthur: "He speaks to me who never had a son".—*The Spectator* (Eng.) Oct., 15.

A New Alcoholic Stimulant

We are told that a foreigner living in Mimico was handing out to his friends a weird sort of drink consisting of half wood alcohol and half benzine, at 50 cents a quart, in the early part of November. We are told that there is no doubt about the truth as to the ingredients, but we are inclined to doubt that the mixture he sold contained half wood alcohol.

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Original Communications

The Diagnostic Value of Pain, Tenderness and Rigidity in Abdominal and Pelvic Diseases

By S. M. Hay, M.D.—Associate Professor of Clinical Surgery in Toronto University. Chief of Surgical Service, Toronto Western Hospital.

First allow me to say that this paper has been prepared for the general practitioner rather than the specialist. It is re-written and enlarged from a paper which I read before the Ontario Medical Association in 1916.

In the great majority of abdominal and pelvic diseases they first announce their presence by pain, and, unfortunately, the pain-language by which the abdominal cavity expresses its distress is less clear and distinct than that of the other great cavities of the body, the cranial and the thoracic.

In almost all cases of visceral pain, no matter what its actual point of origin, it is usually first located over the centre of the abdomen, that is, over the solar plexus, which is, roughly speaking, bounded in the one direction by the enciform cartilage and a point one inch below the umbilicus, and in the other direction by the outer borders of the recti muscles, but in forty-eight hours and often much earlier such pain will have localised over the organ affected.

Pain is also frequently the first symptom that impels the patient to seek medical advice. It is therefore the starting

* Read before Section of Surgery, Academy of Medicine, Toronto, January 17th, 1922.

point for all our diagnostic train of reasoning. A correct knowledge of it, in all its variations, assists us in diagnosis, and diagnosis is the very foundation, the chief corner stone, of all scientific medicine or surgery. There seems to be a great deficiency in our ability to make a full and correct use and interpretation of the information conveyed by the manifestations of pain.

There are many varieties and degrees of pain. These should be carefully studied. In the first place pain must be differentiated from tenderness. Pain is a subjective sensation not requiring any interference by the examiner in order to elicit it. Tenderness requires pressure, as of the examiner's hand, before it can be determined.

Abdominal-pelvic pain may be one of three kinds. It is either *continuous, intermittent,* or a combination of the two—continuous pain with intermittent exacerbations.

In this region intermittent pain indicates either neuralgia or some obstruction to the free flow of the contents of one of the four great tubular systems in the abdomen—the urinary, bilary, fecal or, in the female, the genital series.

This intermittent obstructive pain is always dependent on the peristaltic contractions of one or other of these tubes. It is well to remember that the ordinary contractions of unstriated muscles are not perceived, they are painless, while the forcible contractions of unstriated muscles are well-nigh unendurable; they cause the most severe pain that human beings are called upon to endure. All the colics are pathological examples of this fact, and labor is a physiological example.

Now we must distinguish between this intermittent peristaltic pain, and the intermittent neuralgic pain. We may mention four distinguishing characteristics.

1. Neuralgic pain is referred to the abdominal skin. A slight touch intensifies it even more than firm pressure; indeed, deep pressure frequently, but not always, relieves it.

Visceral pain is intensified in proportion to the pressure exerted.

2. Neuralgic pain follows the course of the abdominal nerves. It is found by pressure over certain definite points, namely: just where the anterior, lateral and posterior branches pierce the deep fascia, points which are well known and distinct. It is generally more marked in the back than in the front.

Visceral pain is not confined to the nerve lines and is mainly felt in front.

3. Neuralgic pain is sharp and darting.

Visceral intermittent pain is paroxysmal, wave-like; gradually becoming more and more intense and then dying away.

4. Neuralgic pain is increased by cold or anything which lowers vitality.

Visceral intermittent pain is increased by anything which stimulates the peristalsis of the tube affected.

The character of pain, if it be possible to obtain any reliable description of it, has its value in diagnosis. Bishop says, "an intense, sudden, tearing, rending pain often severe enough to produce collapse, and usually associated with sharp vomiting, is common to a comparatively small class of cases.

These are rupture of : 1, Ectopic gestation; 2, Pyosalpinx; 3, Appendix abscess, where the rupture takes place into the general peritoneal cavity; 4, Gall bladder; 5, Gastric ulcer; 6, Duodenal ulcer.

It is worthy of note that these are all ruptures of important organs, permitting the escape of an *irritating* fluid into a *healthy* peritoneal cavity. In ascitis we get none of these awful acute symptoms although the peritoneal cavity may be filled to its capacity. Why? Because the fluid is not irritating. Again we may have a considerable quantity of pus in the peritoneal cavity in tuberculous peritonitis, and none of these symptoms appear, because the peritoneum was unhealthy when the pus came into contact with it.

Now while we have described these intermittent, obstructive colic pains as being almost unendurable, still I believe the pain in most of the acute abdominal conditions is just as severe as those above mentioned, but they are readily distinguished from them. In colic the pain is intermittent and the abdomen is not rigid between the pains. In colic the patient usually tosses all over the bed, may even assume the knee-chest position, or kneel on the floor with the abdomen lying on the bed. In acute abdominal conditions, especially in perforation of the stomach or duodenum, the patient usually assumes some definite fixed posture, generally bent forward. This fixed position of the patient is at times so marked that it is with difficulty we can get the body straightened sufficiently to make an examination of the abdomen. In the acute abdominal conditions we have continuous pain, tenderness and rigidity, the rigidity soon becomes board-like and extends all over the abdomen.

It might assist if we were to contrast the colic cases with those acute abdominal conditions.

Colics.	Acute Abdominal Conditions.
1. Pain intermittent.	1. Pain continuous.
2. No rigidity between pains.	2. Rigidity marked and continuous.
3. Attitude, tossing about.	3. Assumes fixed posture.
4. No tenderness.	4. Tenderness marked.
5. Distention, slight or none.	5. Distention soon appears.
6. Percussion, liver dullness	6. Percussion, liver dullness may be absent.
7. Expression, not anxious.	7. Expression, anxious.
8. No air hunger.	8. Air hunger may appear.
9. Color normal.	9. Color, may be blanching.
10. White blood count normal.	10. May be leucocytosis.

Pain and tenderness may be combined and then are of great diagnostic value. By keeping this in mind we are enabled to distinguish ordinary colic or lead colic, in which there is severe pain, but no tenderness, from peritonitis or appendicitis in which both pain and tenderness are present. In this way we distinguish between gall-stone colic, or renal colic with their recurring paroxysms of pain without tenderness, from empyema of the gall-bladder or perinephritic abscess in which both pain and tenderness are easily demonstrated. Have we not all come to the bedside and been in doubt as to whether we had a case of calculus in the right ureter or an appendicitis? If we remember that we have pain only in the case of calculus, and pain and tenderness both in appendicitis we have at least gone a long way toward making a diagnosis. Of course, apart from other symptoms, it would not justify a positive diagnosis.

Pain and rigidity. This combination is important. It is well to remember that we do not get rigidity over an inflamed viscus until its peritoneal surface becomes inflamed. A gastric ulcer may cause pain, but not rigidity until the ulcer has extended far enough to affect the peritoneal coat of the stomach. Catarrhal appendicitis will cause pain but not rigidity until the peritoneal surface of the appendix becomes inflamed. In appendicitis the pain, tenderness and rigidity remain localized until a leak occurs, either through a small perforation, or through the damaged wall of a gangrenous spot. This I have been able to demonstrate on many occasions. When a leak occurs then the distant peritoneum becomes involved and we have pain, rigidity and tenderness all over the abdomen. Later on this rigidity passes away when distention begins, which indicates septic paresis of the intestine.

The time at which pain occurs, or its relationship in time to certain other functions, will often assist us in diagnosis. Pain just after micturition suggests cystitis or stone in the bladder, or perhaps stone in the ureter near the bladder. Pain during micturition would indicate urethritis, perhaps of gonorrhœal origin; pain before defecation, ulceration of the rectum, acute prostatitis, or metritis; pain during or after defecation, fissure. Again pain before menstruation, might indicate ovaritis or salpingitis; during menstruation some contraction organic or spasmodic, or some flexion of the uterine canal. Pain immediately on taking food, ulceration of the stomach; two to four hours after food, duodenal ulcer.

Any circumstances which arouse dormant pain, or modify it in any way, should be investigated. A rough motor ride will increase the pain of metritis. A sudden unexpected step down will cause pain in the case of vesical calculus.

The discomfort or dull pain, of which patients complain with a large descended inguinal hernia is, I believe, due to a tugging on the mesentery.

It may appear somewhat strange that the sudden severe pain of a ruptured ectopic, followed by acute abdominal symtoms, should form such a contrast with the internal hemorrhage which follows abdominal operations and where there is as a rule, no pain.

This latter condition can probably be accounted for by the previous insult to the peritoneum by the operative procedures, with the consequent reduction of its sensibility.

There is another painful abdominal condition, so unique that a separate description of it may not be out of place. I refer to Intussusception. Bishop says in such cases, which usually occur in children, you will hear from the mother that the child has had attacks of intense pain—she will emphasize this very greatly—but at the time you see it, it will be, probably, fast asleep, evidently in no pain at all, and it naturally occurs to you that the mother is exaggerating. If in such a case you uncover the abdomen and place your *warm* hand upon it, move it *gently* in various directions, at first the child will make no objection. You may or may not feel any mass at first, but your gentle friction will excite peristaltic action, and the child begins to cry. If you maintain your hand there, the crying becomes greater; the pain suffered is evidently more and more intense, until it reaches its acme, and then gradually dies away again. It is wave-like. During the paroxysm of pain a mass may, for the first time, become

palpable. If you have previously detected it, it becomes steadily harder and more defined as the pain increases. As the pain dies away so also does the sensation of a lump become fainter and more elusive. It is always at the acme of the pain that any intussusception is most likely to be detected; and this is because both pain and mass are produced by the same cause, increased peristalsis.

If time permitted we might mention two other conditions which have symptoms peculiar to themselves, namely: Acute Pancreatitis and the twisted pedicle of an ovarian cyst.

Those who have had much experience in abdominal surgery know very well the severe shock that is caused by much tugging and pulling on the mesentery. I am of the opinion that any manipulation which would cause severe pain in the conscious state will cause severe shock in the unconscious or anæsthetic condition. Was it not to prevent shock that Crile developed his nerve-blocking method, even with the patient under general anesthetic? The practical application I wish to make is that we should be as gentle as possible in all our manipulations, especially should we carefully avoid prolonged tugging and pulling on the mesentery. All manipulations should be accomplished with definite purpose and gentle quickness. Other things being equal, the advantage is always with the gentle quick surgeon and against the rough tardy one.

In order to get the best out of our abdominal palpation or bi-manual examination we should remember a few general rules:

Of all the instruments we can use, however, the most important are the hand, the eye and the ear. These cannot be trained too carefully or too constantly. In abdominal palpation, on no account should the hand be raised from the abdominal wall. It should creep as it were from one spot to another and thus gain the confidence of the abdominal muscles. Our manipulations should always be gentle. Human muscle like human mind resents force while it yields to gentle persuasion. The secrets of success in bi-manual examination, as well as in abdominal palpation, are, a warm hand, a gentle touch and patience. Any hurry is fatal. It is well to distract the patient's attention, if possible, by questions, the answers to which require some thought, in order to eliminate the nervous element, and thus get a truer estimate of the actual degree of pain, tenderness and rigidity.

I believe there is no internal condition that has not an external expression. It remains for us to discover and interpret it.

I plead for a more intensive study in abdominal and pelvic diagnosis, and I believe our labor will have sure reward.

117 Lyndhurst Ave., Toronto.

The Surgical Treatment of the Varicose Ulcer.—(Au sujet du traitement chirurgical de l'ulcère variqueux.) *Bull. et mém. Soc. de chir. de Par., 1921.* P. ALGLAVE

On the basis of his clinical experience and research during a period of twenty years Alglave concludes that total resection of varices is the only rational curative or preventive treatment of varicose ulcers.

Experience has shown that the Moreschi-Reclus treatment of varicose ulcer (interruption of the blood column which distends and alters the venous walls by its weight and sectioning of the vascular nerves) is uncertain in its results. The fundamental principles on which total resection is based are as follows:

1. Every varicose ulcer has its point or origin in a varicose vein.

2. Such an ulcer begins where a diseased vein adheres to the skin.

3. The presence of a varix threatens the further development of ulcers in addition to those already present.

4. Total resection of varices is a rational method of removing the mechanical causes which increase the blood pressure in veins already diseased or in those predisposed to varicosity. Such predisposition may be congenital or acquired.

Of seventeen of the patients operated upon by Alglave fifteen have remained cured, one for eight years, six for fifteen years, two for four years, three for three years, and three for two years. Recurrence was reported in two cases, both of which were cases of complex ulcers.

Alglave differentiates the typical or simple varicose ulcer originating from a varix alone from the more or less complex ulcer which has its origin in a symptomatic or secondary varix to which other factors are added. In the latter the limb may have been formerly affected by phlebitis or there may have been a fracture or other traumatism more or less seriously involving the veins. The simple varicose ulcer is more often amenable to surgical treatment than the complex ulcer.—*Surgery, Gynecology and Obstetrics.*

Some Observations on the Value of Pre-operative Treatment for the Surgical Patient in Relation to Anæsthesia

By W. J. Defries, M.B., Tor.,—Anæsthetist, Grace Hospital, Toronto.

Post-operative vomiting has always been dreaded by the surgeon as well as by the anæsthetist. If the patient is not nauseated after the operation, then the anæsthetist is quick to take the credit for administering a "good anæsthetic," but if, on the other hand, persistent vomiting occurs, the surgeon, by his manipulations during the operation, was of course, undoubtedly to blame! But that time has passed when the expressions: "the patient took a good anæsthetic" or "he took a poor anæsthetic" can be used. We all have seen patients who, even after operation of short duration, during which time the anæsthetic was administered by a skilled anæsthetist, vomit persistently, while others, after long operations, the anæsthetic being given by the junior interne, have recovered without even being nauseated. This would lead to the belief that certain persons are more prone to vomit than others, and so it is simply their misfortune. But investigators of this conditions have come to the conclusion that nausea, vomiting, distension, gas-pains, headache and other symptoms of profound shock, which may end in death, are all symptoms of an acid intoxication. and, while post-operative treament is helpful and sometimes curative, yet pre-operative treatment is very frequently prophylactic.

Reiman and Bloom found that after the administration of any of the alcohol group of anæsthetics, ether, chloroform, and ethyl chloride, that the alkaline reserve of the plasma was diminished in every case. This did not occur when nitrous-oxide and oxygen were used. It has been found that patients with a low alkali reserve before operation showed signs of acid-intoxication afterwards. Here it would seem is the reason for the post-anæsthetic sequelae. Reiman and other investigators have found that the condition of shock is always associated with an uncompensated acidosis. They believe that the protection of the patient from acidosis rests in limiting sub-oxidation and in supplying the body with alkali. Ammonia and the acidity of the urine are increased after anæsthesia. The acids are neutralized as they are formed by sodium bicar-

bonate and ammonia, and, also, by other available but less easily mobilizable bases, such as calcium and magnesium. The salts of the acids are then excreted and thus eliminated from the body.

If then the influence of the anæsthetic is toward the depletion of the alkali reserve, and a low alkali reserve at the commencement of the operation results in an acidosed condition of the patient at the close, which is evidenced by persistent vomiting, distension, great pain and other symptoms mentioned above, then a treatment that will build up a good alkali reserve will be of decided benefit.

But all surgical patients are not in the need of further alkali treatment and too much alkali may be as harmful as too much acidity. Therefore, whether or not alkali should be given may be determined by some test which will indicate the alkali reserve. A routine estimation of this factor of safety is desirable. The rate of the respiration should be noted, and Yandell Henderson's simple test for acidosis employed, namely, the ability to hold the breath for the normal period of forty seconds. If there is a suspicion that the alkali reserve is not what it should be, then one of the clinical methods for estimating it should be used. (J.A.M.A., Vol. 78, No. 19.).

Probably the simplest and most widely applicable of these is the determination of the percentage of CO_2 in the alveolar air by Henderson's method. When this test indicates the need of additional alkali, sodium bicarbonate should be given until urine becomes alkaline or neutral at least, to litmus. Wm. H. Morris points out that while the administration of sodium bicarbonate increases the alkali reserve, the value of this treatment is shown post-operatively, and he claims that sodium bicarbonate given before operation is a rational precautionary measure against post-operative vomiting.

The object of the use of sodium bicarbonate is to (1) change the reaction of the urine from acid to alkali; (2) restore the normal CO_2 tension in the alveolar air; (3) restore the normal bicarbonate reserve of the plasma.

The surgical patient, whenever possible, should be placed on a special diet for three or four days before operation. This diet should provide freely of carbohydrate, alkali and water. It should include well-cooked cereals, with plenty of sugar, white bread or toast, malted milk, prepared foods containing maltrose and dextrose, baked potatoes, all vegetables, and fruits as oranges, grape-fruit and apples. It should be remembered that organic fruit-acids are quickly oxidized, so that feeding

of citrus fruits is equivalent to the administration of alkali in an agreeable form. For the alkali element of the treatment carbonates and bicarbonates of sodium, calcium and magnesium should be given. Sodium bicarbonate in one-dram doses and calcium acetate in one-half-dram doses every four hours with plenty of water have proved to be very efficient treatment. The idea is to have the patient come to operation with the urine alkaline to litmus and passing at least fifty ounces in twenty-four hours. (Sanders, N. Y. Med. J.)

The use of alkaloids in combination with general anæsthetics is the common practice of many surgeons, and does much to prevent anæsthetic complications. When morphine, with or without atropine, is given preliminary to anæsthesia, the patient comes to the operating-room in a tranquil frame of mind. Nervous excitement is absent, the dread of the operation is greatly lessened. It should be remembered that fear is a large contributing factor in the production of acidosis and also, contributes to shock. Therefore, the reduction of fear is important.

Many operations can be done under an extremely light narcosis, which, without medication, would have called for a deep ether anæsthesia. The patient is then, while on the operating- table, in a condition of safety, also, from the small amount of anæsthetic employed, has less post-anæsthetic vomiting, thus the risk of subsequent acidosis is lessened. The risk of ether bronchitis is practically eliminated. The effect of morphia on the respiratory centre must be remembered. It is a depressant reducing the frequency and depth of the respirations. Ether is a respiratory stimulant. The result of their combination is the production of a regular type of breathing. But with the use of morphine the anaesthetist must allow for the stage of analgesia produced by it. He must not given his usual anæsthesia ignoring the light anæsthesia produced by morphia. As long as the patient suffers no pain, is relaxed, and does not embarrass the operator by reflex movements, all requirements are satisfied, and the zone of safety, which separates the stage of maintenance of the anæsthetic from the point of respiratory arrest, is lengthened and the patient's return to consciousness hastened. The morphia at the close of the operation still assists by keeping the patient in a mild stage of analgesia which is sufficient to bridge over that stage of acute pain from which patients, not so protected, frequently complain.

Two factors which promote post-operative shock are loss of sleep and dehydration. In the preparation for any abdominal operation these factors should be considered carefully. The patient must be ensured a proper rest on the night preceding the operation. If of nervous temperament, a sedative, as veronal, can be given. It is not advisable to employ pre-operative purgation for large amounts of fluids are lost by the purge and the night that should be spent in sleep and comfort is made a veritable nightmare. It has been shown by Alvarez and Taylor that the purged intestine is less able to empty itself and is more distended than one that has not been purged. All surgeons have noted how much easier it is to operate upon the emergency case with collapsed bowel than upon those who have been thoroughly prepared with their empty but distended coils, and yet we are slow to realize that purgation is not only unnecessary but harmful. It is better to use a soap-suds enema on the night before operation and another in the morning except in the obstinately constipated who can be given a mild laxative, as cascara or phenolphthalein, at night and the enema in the morning.

From the observation of several hundred cases during the past year who have had pre-operative treatment for several days before their operations, and several hundred other cases who were not specially prepared, it has been noticed that the majority of cases in the prepared class made a much quicker convalescence then did the others. In fact, by the third day the prepared patients were feeling like patients who were a week over their operation. They had very much less vomiting many were only very slightly nauseated and only about 2% appeared to have not been benefited. There was a marked absence of post-operative distension and pain. All these patients were given ether or chloroform and ether by the semi-open method, that is, with the ordinary mask covered by gauze and a towel used as a further covering to promote some re-breathing at times.

The most marked results were seen in cases who formerly had several anæsthetics followed in each instance by severe vomiting but no vomiting occurred when pre-operative preparation was used.

30 Bloor Street West.

Maxillary Cysts.

By Fulton Risdon, M.B., D.D.S.
Toronto.

Cysts of the jaws are seldom reported in medical literature, consequently they are supposed to be rare. This is not a fact, especially if all cavities lined by a membrane and distended by a fluid be considered true cysts. Further, the meagre literature is so confusing that one is forced to believe that the pathology of these cysts is not clear. Sir John Bland Sutton has written more extensively than most general surgeons on this condition, and his classification is largely accepted with a few modifications. We believe that his classification can be simplified, but as yet we have not sufficient proof for this statement. At any rate it is agreed by most writers that these cysts are conveniently divided into two classes, namely, those suggesting their etiology from Embryonic Rest, and those due to Preceding Infection. It will be my purpose to exclude all other cysts from our consideration in this paper, and to attempt to describe these cysts which are frequently seen.

The classification of the Embryonal or Cell Rest type I intend to follow is to be found in a report on Odontomes by Gabell, James and Payne, published by John Bale, Sons and Danielsson Ltd., London. It is as follows:—

1. Epithelial Odontomes.—Where the abnormal development takes place in the dental epithelium alone—

Multilocular Cysts.
Dentigerous Cysts.
Dental Cysts.

2. Composite Odontomes.—Where the abnormal development takes place primarily in the dental epithelium, and secondly, in the dental papilla, and may occur in the follicle also.

(a) Where the abnormal development of the dental epithelium is such, that the formation of numerous irregular dentine papillae results, which are calcified in one mass or sporadically:—

Complex Composite Odontomes.
Compound Composite Odontomes.

(b) Where the abnormal development of the dental epithelium is such, that the formation of two or more tooth-like dentine papillae results and are calcified as one mass:—

Geminated Composite Odontomes.
Gestant Composite Odontomes.
Enamel Nodules.

(c) Where the abnormal development of the dental epithelium is such, that the formation of a dilated portion of the dentine papilla results and is calcified as one mass:—

Dilated Composite Odontomes.

3. Connective Tissue Odontomes.—Where the abnormal development takes place in the dental tissues of mesoblastic origin alone.

Fibrous Odontomes.
Cementomes.

So much for the Cell Rest type. As to those where a preceding infection is most likely the etiological factor, there is only one class, i.e.,—

Inflammatory Cysts of Dental Origin.

These are called by some writers Radicular Cysts, but this is confusing as, according to most classifications, it suggests Cell Rests.

Etiology.

The cause underlying the development of the Cell Rest type is most interesting. It is suggested by Malassez that these cysts are due to an inclusion of some of the paradental epithelial debris, such as arrested cells from the epithelial cord, papillae or follicles. The enamel is formed owing to action of the epithelial cells, and the dentine and the cementum arise from the papillae and follicle. Hopewell-Smith's theory suggests that the excessive secretion of the fluid takes place between the enamel and the follicle, which, accumulating, distends the space and produces a cyst.

The etiology of the Infective Class is that of chronic irritation resulting in the formation of a connective tissue capsule encysting the infected area.

The pathology of the first class is that the cyst wall is formed of connective tissue lined by epithelium, generally columnar, with or without tooth debris, such as partly formed teeth or denticles.

The second class, which is more common, has this pathological sequence, the death of the infected pulp, an inflammatory reaction resulting in a granuloma with a fibrous capsule, and, owing to the pressure of the fluid of the cyst, absorption of bone. These are seen most frequently in the maxilla, and about equally in both sexes.

Diagnosis.

As a rule the patient complains of nothing abnormal except perhaps a sight swelling which has been noticed for some years, or a swelling suddenly appearing over the cheek and increasing very slowly, taking years to attain the size of an egg. In some cases, the extraction of a tooth reveals the condition, showing a brownish fluid escaping from the socket.

The diagnosis depends largely on the roentgenogram; for the inflammatory cyst around the apices of the teeth the dental film is of value, but if the cyst is of large size the stereoscopic plates are more reliable. May I stress this point and urge the most careful study of a well-taken series of plates, and in doing so may I suggest that two positions be taken as a routine,—the antero-posterior and the lateral stereograph. I believe that the one-plate view, even in two positions, is almost useless, and that all head work should be done stereoscopically.

As to differential diagnosis,—of course one must rule out malignancy if possible, and if suspicious of Lues, a Wassermann should be done. Ostéoma, fibroma, adenoma, adamantonoma, chondroma, etc., are to be considered. The stereoscopic plates will help in the diagnosis from antral disease and will put one on guard when considering a multilocular antrum. If it is a cyst, very likely a tooth will be enclosed in the cyst membrane or the projection of a tooth root into an unolocular space will be observed. Further, if the cyst is infected, it is not likely to give the pain of an acutely infected antrum, and no discharge is to be noticed in the nose in the middle meatus. The nasal signs of a cyst usually are rounded swelling in the floor of the nose or a small inferior turbinate crowded against the septum. Further, when the membrane which is removed at the time of the operation is examined, there should be no doubt as to whether you are dealing with a cyst complicating the antrum, or the so-called multilocular antrum. Gruber reports that 2.5% of all antra are multilocular, but this percentage is too liberal. Zuckerhandl and Hajek report one each where the anterior half was infected and the posterior clear. The examination of excised membrane in the case of the multilocular antrum would reveal a ciliated columnar epithelium; and of the infected cyst just scar tissue forming the entire capsule.

The treatment of these cysts consists in removal of their contents including the sack, and allowing the depression to fill from the bottom. I have found that dental compound or hard wax (sterile) is better to keep patent the mouth of the wound

than gauze packing. Further, I cannot see the rationale of opening these cysts complicating antral disease into the antrum and draining into the nose even where they assume considerable size, unless the anterior antral wall has been absorbed or the antrum infected. You will find that your incision does not close as it does in the operation for a radical antrum, because the periosteum covering the cyst has been largely lost.

Report of Cases.

1. Mr. M. S:—

Complaint—Swelling of face.

Duration—Four years—Increased considerably this last year.

Past Illness—Children's diseases.

Present Illness—Dates to four years ago—Gradual swelling of face; no pain.

Examination—Face—Left side over antrum swollen size of walnut. No redness or oedema, etc. Left lateral tooth missing, no history of eruption. Says he had temporary laterals which were extracted eight years ago. Left central longer than right central (pressure symptom). Slight pain on pressure, and anterior walls bend slightly.

Nose.—Negative.

X-Rays.—Show fully erupted tooth lying horizontally, also bony outline of cysts.

Diagnosis—Dentigerous cyst.

Pathological Report—Dentigerous cyst.

2. Mr. H. F.:—

Complaint—(1) Swelling of left cheek. (2) No pain or discharge.

Duration—Four years—Appeared suddenly, not increased much since then.

History—Appeared four years ago, no change since then; appetite good; no loss of weight; no pain.

Examination—Skin moves freely over a growth size of hen's egg. No glandular involvement. Growth soft on pressure but painless. Growth fixed.

X-Rays—Showed complete outline of cyst, absorption of anterior bony wall, small antrum crowded posteriorly.

Diagnosis—Dental cyst.

Pathological Report—Cyst size of plum. Opened when received shows plasma cell and fibroblasts. Simple cyst with subacute inflammatory reaction.

Some Further Notes on Cæsarian Section

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Perhaps no event of my student days stands out more emphatically than one certain afternoon in my sophomore year. Graduates look back with amusement on the worries and opinions of those days, and appreciate the enormous gulf, which existed between students working in the hospital and others like myself, still in the laboratories. Imagine my elation that afternoon, when a senior rushed into our boarding house announcing that a Caesarian section was about to be commenced! Scarcely having grabbed our hats, and while rushing post haste to the hospital, he informed us that Caesar had been born that way, and very likely we would never see a similar operation again. That was nearly twenty years ago, and the pendulum of judgment has oscillated rather violently since then.

At an Ontario Medical Association meeting, held in Toronto about eight years ago, I reported fourteen consecutive Caesarian sections, without the death of a mother or child, in operations performed by Dr. H. Howitt and myself, three of which are worthy of mention, as that paper was not published.

1.—A married woman, age 43. No children, about 8½ months pregnant. A large fibroid blocked the pelvic outlet, and made it impossible for a living child to be born in the ordinary way. Her husband was a prosperous farmer, and dearly wished for an heir. It was thought that unless this child was saved, there would be little chance of another child in the future. By Caesarian section, a splendid male child was was delivered. The fibroid was removed, at a subsequent operation.

2.—A stout ruddy primipara of 42, with prominent abdomen and small hips and vagina. She had not felt life for a week, and complained of a sensation of cold weight, the lower abdomen. She said that her child was dead. I agreed with the woman, and suggested that it would be easier for her to have the child removed through the abdomen, than to remove it in pieces through the vagina. She consented and without difficulty, or the slightest set back, the dead child was removed, by Caesarian section, because it was thought safer for the mother.

3.—A primipara, 40, with chronic nephritis of years' duration. I saw her when she was pregnant about 8 months. She

was bloated, and her facial expression was entirely altered. Her legs and her abdomen were swollen. Mentally, she was very lethargic. I advised hospital treatment, but she refused, so I withdrew, but in about three weeks, I answered an emergency call, to find her on the road-side unconscious, between convulsions, and being lifted into a passing rig that was to drive her to St. Joseph's Hospital. She received Extreme Unction, and was rushed to the operating room. With a dash of iodine for the abdominal preparation, the child was delivered, and the uterus was sewn with only a running cat-gut suture. The peritoneum and fascia were sewn in a similar manner, and the skin coapted with silk worm gut. It was all over in a few minutes, and she was back in bed in a brief space of time. The oedema disappeared in three days, and six days later,when informed that I had come to remove the sutures, she inquired, "Was I badly torn?" Informed of her operation, she was skeptical at first, then said. "If I have any more children I will have them born that way." She drove with her child to the church in three weeks, for its christening.

These, and other cases, were done at a time when many medical men, held a somewhat similar opinion of Caesarian sections, as the senior of my student days. A few years ago, I had the impression that only rank hard luck, could bring a mortality. I argued that not one important blood vessel was cut, or required to be ligatured, during the operation; that a Cæsarian section was less risk for the mother or child than many forcep cases, and certainly safer than a tedious forceps delivery; then again, my record showed the absence of a death of a mother or child, but the pendulum is swinging again, and I think towards conservatism. There is a tendency for a surgeon to report only his successful cases, and not his disappointments. I have now had experience with over twenty Cæsarian sections, with one failure.

This woman was seen by me during two previous confinements. Each time there was much albumen in the urine. Her features were altered, legs swollen, splitting headaches, and torpid mentality, and each time she lost her child. I determined to do a Cæsarian should I see her again under similar conditions. In due time, she became pregnant. About the eighth month, the old symptoms re-appeared.

In those days I was of the opinion that the cervix required to be dilated, before a section was made. In the interval, she developed a severe pain in her side, and considerable shock. Her skin was white and cold, her pulse was small and

quick. She was restless and anxious looking. The pain was in the abdomen, and the uterus was tense and tender. Her cervix was now dilated, and the bleeding from the vagina was becoming serious, but, the presenting part did not advance. I had an option of: (1) Perforation, with rapid delivery. (2) Plugging the vagina, by the Dublin method. (3) Cæsarian section.

I preferred the abdominal method, because it was the quickest way to eradicate the danger. Here was a woman, with nephritis and a secondary anaemia. Her face and legs swollen. Her concealed hæmorrhage was now revealed, and experience had given me such confidence, that I felt, rightly or wrongly, that no matter how bad an obstetrical patient might be, that there always was the Cæsarian method to fall back on, for an almost certain recovery.

On opening the uterus, a large amount of blood was found to have separated the placenta from the uterine wall, about a fifth of the contents of the uterus was occupied by the "concealed" hæmorrhage. The child was dead. The uterus failed to contract after the operation and all efforts to combat shock were without avail.

It occurred to me that a brief report of this case might be useful to impress upon others, as it did upon me, the limitations and dangers of Cæsarian sections.

The Late Dr. George A. Bingham, M.B. M.D. C.M.

An Appreciation.

It is difficult at such short range to appraise with accuracy the value that should be set upon the services of our dear friend and colleague to his day and generation. His patients knew how to value his sound judgment and skill in diagnosis of ailment and forecast of result, his imperturbable patience and self-control, and his strong courage in emergency or misadventure. His colleagues and his students knew him as a large-hearted man, free from the foibles and partisanships of natures designed on a pettier scale, or less well schooled to broad and spacious views. They knew him too as a pre-eminently skilful teacher, with keen sense of proportion, full knowledge both of essential principles and necessary details, and, chief of all a teacher's qualifications, an unending capacity for putting himself in the place of his class. He had an unerring instinct for the difficulties of the student, based upon a combination of sympathy with the mass, and wide orderliness of mind, with a special gift of clear and lucid statement. His genial persuasive presence will be much missed, not only in Hospital Lecture room and Consulting room, but at the meetings of Committees and Associations, charged with the conduct of the affairs of the profession at large.

J. T. Fotheringham.

An Appreciation.

There can be no more melancholy pleasure than that involved in writing an appreciation of such a man as George A. Bingham, so widely loved, so universally esteemed, in human view too soon removed. Yet, hath it not been said that "the righteous is taken away from the evil to come?" And do we not fall upon evil days, when "the times" appear to us to be "out of joint?" It must not be inferred from this that Dr. Bingham was "behind the times." *Tout au contraire*, he was always well in the van with a large measure of wisdom and experience to keep a wide-open view and a well-trained judgement to discern what the objects, and the clouds, on the horizon meant. But he was not of the Group-Practice day, nor of the

Commercial day, nor of the Trades Union day "where all that is high and holy" in Professional Service "fades away." It was the writer's privilege and pleasure to know Dr. Bingham by intimate association for forty years and therefore he expresses no hasty judgement when he affirms that he was "an honest man, the noblest work of God." He had a fine presence and "though modest, on his unembarrassed brow, Nature had written 'gentleman,'" and "he bore without abuse that grand old name." For, to quote Kipling's carol:

> "He walked in honesty, good sirs,
> Of thought and deed and word!
> Which shall befriend our latter end—
> And who shall judge the Lord?"

Before beginning the study of Medicine he had some pedadogic experience, which stood him in good stead, for immediately after graduation he became a demonstrator of Anatomy with great success and acceptance, and ultimately Professor of Clinical Anatomy and Associate Professor of Clinical Surgery. He was naturally eloquent, and the last great opportunity for his exercise of that faculty was on the occasion of the recent presentation to Dr. J. A. Temple of his portrait in commemoration of his Jubilee. As a teacher he was diligent, accurate, earnest and thoughtful, methodical and clear, and year by year he grew in grace in that regard and became the favourite clinical teacher on the surgical side. As a practitioner he was faithful and self-sacrificing, kindness itself, and awakened the warmest regard and the unbounded confidence of his patients. As a surgeon he was careful, considerate, skilful, a good anatomist, a painstaking operator, bold when the occasion demanded, "but not too bold," and never assuming that the case was ended when the operation was done. In all medical respects he was a faithful "guide, philosopher and friend." As a man he was a worker, taking little recreation or exercise, though not swearing wholly, as A. Edward Newton does, by Joseph Chamberlain's opinion, "that to walk downstairs in the morning and upstairs at night is enough exercise for any gentleman," for he took that kind of exercise in excess. His amusement, however, was found in literature, wherein he was well read, and in fishing, and he was a keen, perhaps it would be right to say a "Compleat Angler;" certainly he had three of the psychological qualifications of an Isaak Walton, being patient, contemplative and honest. Of his fishing club, Judge Morson is the sole survivor, and helped to bear him to the tomb. When Rhadamanthus' time has

come (*procul sit!*) to carry the obolus to the "hateful Ferryman, the tale will be complete; but each a sportsman, ready to take Andrew Lang's "Last Chance" and whip "Cocytus" stream till it "wails" again.

"Within the streams, Pausanias saith,
That down Cocytus' Valley flow,
Girdling the grey domain of death,
The spectral fishes come and go;
The ghosts of trout flit to and fro.
Persephone, fulfil my wish,
And grant that in the shades below
My ghost may land the ghosts of fish."

And if, with Hamlet, one may "trace the noble dust of Alexander till one find it stopping a bung-hole," may not "Imagination body forth the forms of things unseen," and see these piscatorial friends foregathered "on the Night's Plutonian Shore," and hear them swap veracious tales of the fish that got away?

One other lucubration from the haunts of memory: Dr. Bingham was one of a triumvirate of unusual men with Professor J. I. Davison and Dr. Wm. Britton, long the representative of the University on The Medical Council. These three were as unlike as possible, save in their affection for one another, and they were for long years faithful friends who foregathered frequently. Two of them were "fiddlers," but Bingham was not a musician and must have supplied the interludes. Suffice it to say that their friendship was unbroken save by death and now renewed; and that their example, of the Damon and Phintias type, was a joy to all observers, and illustrated how good and beautiful a thing it is for brethren—and neighbours—to dwell together in unity. Of each we may affirm, "His life was gentle; and the elements so mixed in him that Nature might stand up and say to all the world: "This was a man!" Lovely and pleasant were they in their lives, and in death they are not divided!

I. H. Cameron.

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Editorial

The Full-Time System

We are fortunate in being able to publish a couple of valuable articles on the full-time system, quite impersonal in character, copied from the *University Monthly* and with them some comments by the Editor, which are interesting from the layman's standpoint. The *Monthly* is published by the Alumni Federation, well-conducted and well-edited. The Editor gives one the impression that he always tries to be fair and generally succeeds. We fear, however, that in the present instance the expressions "controversy" and "vituperatine" indicate a certain bias, of which the writer is probably quite unconscious. But regarding the editorial, in its entirety, we have nothing but praise.

The "statements secured from two prominent medical men" furnish an admirable resume of opinions on the question. We prefer to present them now without comment of any kind. We are glad to note that both writers show a broad and catholic spirit.

The Physio-Therapeutic Work in the Various Military Hospitals throughout Canada

This brief and condensed official publication, issued in 1920 by the Department of Militia and Defence, at the instance of the Director General of Medical Services, represents the high-water mark of attainments in this branch of the healing art in Canada. It may be safely said that no other country in the Great War surpassed the standards here set, or the achievements here recorded. It constitutes a monument to the lamented memory of the officers of the M.S. Consultant Board, who had this branch of the hospital work in charge, the late Lieut-Col. Robert Wilson, of Montreal, whose death in the very midst of his best achievements cut short a career so full both of promise and performance. Its scope can best be learned from a reading of the Table of Contents, in seven chapters:

1. Report of the Physio-therapeutic Work in the various Military Hospitals throughout Canada.
2. Report on the Organization of the Work of the Military School of Orthopœdic Surgery and Physio-therapy for the period, April 1, 1918, to October 15, 1919.
3. Synopsis of Courses of Instruction.
4. Remedial Exercises.
5. Remedial Gymnastics—Amputations.
6. Remedial Gymnastics for Heart Cases.
7. Table of Gymnasium Equipment.

The catholicity of spirit in which the Department of Militia and Defence did its work during those trying years may be best shown by a quotation:—

"Although outside the province of this Report, it is felt that attention should be drawn to the necessity of some provision being made in the near future for the industrial cripple on lines which have been so successful with the war cripple. The solution of this problem will be a difficult one, but it is felt that it lies within the scope of the Universities to accentuate physio-therapeutic measures, place the matter on an ethical basis, and take some of it from the hands of charlatans; and, on the other hand, for our modern civilian, or possibly state-aided civil hospitals, to provide suitable treatment departments when Physio-therapeutic measures may be intelligently carried out under proper supervision."

The Report constitutes an excellent small text book for all who think of turning their attention to its very important topic.

An East Toronto Hospital

It is doubtful, if, in the whole of North America, there can be found a proportionately larger number of the better type or the *best type* of family doctor than we have to-day in Toronto, east of the River Don. Our friend, Dr. Pritchett, of the Carnegie Foundation, thinks the "old family doctor" who was the salt of the earth, has disappeared, probably "never to return." But he hasn't *all gone* yet: He is still in East Toronto, where a fair number of McClures have died, and some still live. Among the former well-beloved and long to be remembered were Cleland, Britton, Young, Rowan, Fraleigh, Burgess, and Robertson (Mrs).

Many of us can remember when there wasn't much of Toronto East of the Don; a paper mill, brick kilns, a town called Todmorden, cattle sheds, a few small shops, some dwelling houses, a blacksmith shop, a few taverns, several fields, and a few farms. Now there is a flourishing city of 130,000 inhabitants, growing at present faster than any other portion of Toronto. It has a most desirable class of people, with incomes of $100 to $1000 a month (lots of the former, very few of the latter), many factories, churches, school buildings, public buildings,—probably everything in the shape of buildings excepting what it most needs.—a general hospital.

The following sign is posted near Oyster Bay, Long Island: "Slow down, dangerous hill. Nearest hospital, nine miles away." It might be well to post similar signs at certain points in far Eastern Toronto. But it is not creditable to our "Queen City" that there should be such necessity. The East Don folk want a hospital, and need it.

The doctors of the district, an exceptionally fine body of keen and conscientious observers, proclaim the fact with unanimous and insistent voice. They give their reasons with illuminating statements and arguments, easy to understand, and impossible to refute, as will be seen by a perusal of the symposium published herewith.

The citizens east of the Don are, on the whole, a superior class, composed of some indigent (probably not a large number), many with small incomes, but willing to pay a reasonable charge, some fairly well-to-do, and very few, if any, wealthy. Altogether they form a group of people who urgently need a hospital close at hand.

Of course there are many difficulties which we quite appreciate; but we consider there is an emergency which requires prompt action. The district is *filling up* with wondrous speed, and, on that account, a site should be secured as soon as possible.

Symposium on Hospital Needs, Eastern Toronto

When, in 1913, the Toronto General Hospital was moved to its present location, and its bed accommodation increased, the population of Toronto numbered 445,575. In 1921, this population had increased to 522,666, an increase of 77,091. No increase in hospital accommodation has occurred to correspond with this increase in population. No complaint was voiced in 1913 that there were too many vacant beds. Surely, with seventy-seven thousand more people in the city, there must be a shortage of beds.

In 1913 the population east of the Don was 65,307. In 1921, this population had increased to 131,690 (including immediate suburbs), an increase of 66,383. Of the total increase within the city limits, almost one half has occurred east of the Don. In 1921, of the 1,680 houses built in the city, 951 were built east of the Don. In 1913, there was not a hospital bed in a district of sixty-five thousand people. And in 1922, this vast population of 131,690, greater than that of Hamilton or Ottawa, still remains without a single public hospital bed.

From 1918 to 1920, when the ratio of sickness to health was about normal, a bed was rarely obtainable on demand. During the flu epidemics, the hospital accommodation was pitifully inadequate. It is estimated that, east of the Don, one hundred and eighty lives were lost as a result of lack of hospital attention. This is a serious indictment. The return of a similar epidemic is not beyond the bounds of possibility. The continuation of these days and months of wonderful general health is almost an impossibility. Foresight demands that hospital accommodation be increased, to be at least able to meet the normal demand.

The distance of the most easterly district from the nearest hospital forms an actual menace to the lives of the residents. Imagine what a journey of six miles, and the consequent loss of time, means in such cases as depressed fracture

of the skull, accidental amputation, internal hemorrhage, or the flooding of abortion or miscarriage. Minutes, not hours, are of supreme value. A local hospital becomes a vital necessity.

L. O. C. Skeeles.

While every one recognizes the necessity for a hospital in the east end, perhaps it is at first not quite so apparent that there should be no delay in selecting the location.

A few years ago, a large number of suitable properties were available at two thousand dollars an acre. Now land a mile and a half from the city sells for four times that amount.

A suitable site may yet be obtained for from fifty to one hundred thousand dollars. But the few remaining sites are rapidly being built on. When the Toronto General Hospital bought the present property, it was necessary to destroy valuable buildings. This made the cost of the land so great that the interest on the sum thus spent is quite sufficient to buy enough suitable ground in the east end for a large hospital. The question is shall we now pay a small sum for a large site or wait five years, and then pay annually in interest alone on the cost of a smaller site, a sum greater than would now buy all the property needed.

Realtor.

We have a population of over 130,000 people, which is 20,000 more than the City of Hamilton, which has two general hospitals.

There is no other city in Canada or the United States with a population that large, which has not one or more general hospitals.

The district is over four miles long by nearly three miles wide and is steadily increasing in size.

Sixty per cent. of the building permits are issued for the East End.

There are several sites now available for a hospital which can be purchased at a fairly reasonable figure, but in the course of a year or two the price will become prohibitive, or they will be used for other purposes.

At present the nearest general hospital is St. Michael's the next nearest is the General, then Grace, and then the Western. As St. Michael's and Grace are usually filled, that leaves the nearest as the General and Western. Even in

these it is often difficult to get a semi-private or private ward, and as the public wards are under the control of the University of Toronto, and only staff doctors can follow cases into these wards, and as the class of people who live in the "East End" prefer to have their own doctor follow the case right through, there are very few vacant beds for them, and it usually necessitates waiting for several days to get proper accommodation.

It is time the "East End" got something. Parkdale came into the city owing large debts; West Toronto came in owing hundreds of thousands; North Toronto, which wants everything under the sun, came in loaded under the largest debt; while East Toronto came in free of debt. We are paying the debts of these other districts. Surely we are entitled to a General Hospital here.

G. Wylie Carleton.

I have been asked to write some of the reasons why an up-to-date municipal hospital should be organized and built at once for the use of the residents of the City of Toronto living east of the Don River. I have been asked to deal with the deplorable lack of X-ray and other scientific equipment which such a hospital would possess for treatmen of disease, or to enable the medical profession to have the assistance of these modern methods in diagnoses.

Associated with the City of Toronto, and extending from its eastern boundary, the Don River, with an area of six by two miles north and south, there exists of itself, a city, with a resident population of over 130,000 people.

This city stands alone by itself, unique in comparison with other cities even one twentieth its size, in that, though wealthy, free from debt, with splendidly representative institutions of every sort, churches, schools, etc., it does not possess hospital accommodation or scientific equipment for diagnosis or treatment of disease.

What happens to the poor unfortunate, be he rich or poor, who has the bad luck to fracture a bone in the east end of our city? To ensure the correction of any displacement he must of necessity be carted, jolted, and generally tortured from four to six miles to the nearest X-ray machine, and, as in most cases, carted back over the same road, owing to the fact that it is almost impossible to get a bed vacant in any of the hospitals in the City of Toronto, at any time, unless, of course, one is fortunate in being a member of the hospital staff.

Modern science has recently given us the High Voltage Radiation X-ray machine for the treatment of Carcinoma, but, unfortunately, the only X-ray machine of this calibre is at the General Hospital, and is almost always dated ahead for some three to four weeks.

In acute surgical illness, the East End residents of the City of Toronto not only are not within miles of a convenient laboratory where blood and urine and other examinations can be made for quick diagnostic purposes, and in many cases invaluable time is lost. Many an abdomen has had to be opened in a private dwelling, and the patient's life endangered from possible post-operative sepsis, when accommodation in hospital has not been obtainable. How can the hundred and ten medical practitioners in the east end of this city possibly give the service to the public expected of them, without the advantages offered by a modern hospital?

A bad fire, train wreck, or one of the mildest epidemics we are accustomed to having once or twice a year, would soon fill the "surplus" of the vacant beds in our city hospitals and we would then have a repetition of the days of the fall of 1918, when many hundreds of lives were lost in this city by the deplorable lack of hospital accommodation.

J. Edward Knox.

In times of high taxation both Federal and Municipal, the wealthy business man's income is seriously curtailed so that the amount of money he has for philanthropy has vanished or is rapidly vanishing. Succession duties are growing heavier so that he feels in making his will that the public has received its just portion and bequests to institutions however worthy and needy are curtailed if not entirely obliterated.

It, therefore, becomes the duty of all taxpayers to contribute the cost and maintain institutions for the care of the sick. It, therefore, follows that if the taxpayer pays for it, he should have it so placed that it will be most convenient for him when he becomes ill that his wife and others may visit him. This is possible only when the hospital is within reasonable distance from the home.

Centralization of hospitals does not consider the patient or the relative, who are of prime importance since they are taxpayers who are to pay for the hospital. Motor ambulances

may eliminate distances to a certain extent, but they do not call for the relatives when they are to visit their loved one, nor take them home again.

J. Lloyd Burns.

In connection with the movement in favor of a Municipal General Hospital, east of the Don, I wish to propose a plan for the Government of the Hospital!

1. That a Hospital Commission be appointed by the City Council, to consist of twelve members, three retiring each year, thus giving continuity of service.

2. That the Mayor, the Medical Officer of Health, and the Finance Commissioner, be ex-officio members of the Commission.

3. That the Commission have charge of all matters connected with the administration of the Hospital.

4. That all fees be paid through the Hospital Commission to the Finance Commissioner, and placed to the credit of the Hospital Account.

5. That all disbursements be made by the Finance Commissioner on the order of the Hospital Commission.

A competent medical and surgical staff can be obtained from the doctors practising east of the Don, to take care of public ward patients.

I suggest that the staff be changed every six or twelve months as may be agreed upon, giving all men an opportunity of serving the Hospital, and giving them the privilege of taking care of their own patients in the public ward when on the staff. This plan has been in operation in some of the cities of the United States for some years with perfect satisfaction, and I feel sure it will work successfully here.

I suggest also that a training school for nurses be established in connection with the Hospital. There is no doubt about this part of the work being carried on with success, seeing that the general work of the Hospital will be of such a character as to attract young women who may wish to enter the nursing profession.

F. P. Coates, M.B.

The comparison of data showing the proportion of hospital accommodation in Toronto to population in 1913 and 1921 demands our respectful attention. The number of available beds in the two different periods is practically the same, yet the city has grown from 445,575 in 1913 to 522,666 in 1921.

The population in 1913 of Ward 1, which took in that area from the River Don to the eastern city limits, was 71,655. The population in 1921 of the same area (Wards 1 and 8) was 111,670, a large city in itself and without a general hospital. This is a net increase of 40,025, and does not include the forty thousand or more people living immediately adjacent to but not within the city limits. It will thus be seen that the whole population of Eastern Toronto and adjacent districts is now over 150,000.

Within the time stated there was an increase of 55.85% in population within the city, east of the Don, while the increase of the entire city, including this area, was 17.3%; and the increase of the entire city excluding this area, was only 9.9% (These figures were taken from the Assessment Department records).

In hospital accommodation, Toronto compares very unfavorably with other cities in Canada and the United States. But let us leave out the United States and give some figures from Canada:

Number of beds per 1,000 population (for the year 1919)

Toronto	4.6	Vancouver	13.8
Hamilton	7.3	London	14.8
Ottawa	9.1	Brockville	17.2
Guelph	9.9	Kingston	19.4

W. H. Plewes.

In the recent report of vacant beds in the nine leading hospitals of Toronto, compiled from the reports of vacancies from January 22nd to 31st, 1922, we find an average of 304 daily vacant beds. This at first appears to be a large number, but, on analysis, we find that Toronto has only small hospital accommodation.

Of these 304 vacant beds, 150 are public ward beds in the General, Western and St. Michael's Hospitals under the jurisdiction of the Staff of the Medical Faculty of Toronto University. General Practitioners (other than the Staff) may need beds, and, if the hospitals are crowded, their patients must stay at home or pass from their care to that of the staff man, who is unknown and not wanted by the patient.

Seventy of the remaining 154 beds are in St. Joseph's Hospital at Sunnyside, which is not yet equipped for the care of major surgical or obstetrical cases, leaving 84 beds among the nine hospitals (other than public beds); or, an average of nine beds, covering private wards, semi-private and semi-public

wards, both male and female, Surgical, Medical, Obstetrical, Eye and Ear, Genito-urinary, and other specialities, so that sometimes no suitable bed for a particular case is available, and the patient must remain at home until beds are evacuated, much to the detriment of the patient.

More hospital accommodation must be provided for this growing city, and it should be located in that district where none exists at present.

E. A. McDonald.

The urgent need for a hospital in East Toronto is so self-evident that anything one can say about it seems superfluous. The writer has been engaged in hospital organization and practice in the Orient for a number of years and has only been in private practice for the past three months and no doubt feels the handicaps of the general practitioner without proper hospital facilities more keenly than those who have had time to adjust themselves to the conditions.

I wish to confine my brief remarks to two points, namely,

1. The educative value of a hospital to the community;
2. The cost of maintenance of a hospital.

1. In China and Japan the majority of the British hospitals are either under the auspices of a Church or an educational institution. In all these hospitals, whether they are proper teaching hospitals, or not, education, of both students and public, is a prominent feature. In the Island of Formosa, which has a population of nearly half that of Canada, there are three mission hospitals having altogether about four hundred beds. These hospitals are not needed to "draw crowds," for the natives will gather in crowds and listen for any length of time to any kind of teaching; but the educative value of mission hospitals to the community makes them a valuable adjunct to the other institutions long after their usefulness as a "drawing card" is outgrown. Formosa has better hospital facilities than Ontario. Take for example the City of Taihoku—the capital—there the population is one hundred and ten thousand, there are over one thousand beds in thoroughly equipped hospitals, not to mention numerous small private hospitals. In connection with these hospitals there are sixty full time specialists and a well equipped and staffed research department. Yet for the reason mentioned above, all the British hospitals are increasing their accommodation and staffs.

We are not treating diseases in our hospitals, so much as patients—men and women who are more receptive to ideas

than at any other time in their lives. One can recall many instances in China and Japan of men and women to whom one's first introduction was to beggars by the way side, blind, maimed and full of sores. To-day these people are not only useful, but respected citizens. I am surprised that the churches in Toronto are leaving it to the doctors to take the initiative in this matter. Not only is the patient influenced, but the whole community. If the people are interested in their own hospital, they will have their attention directed to questions of public health. During a recent epidemic of cholera in Formosa, which swept over the Island leaving thousands of dead in its train, not one Christian lost his or her life. They attributed it, of course, to a special protection, and we are not going to dispute that, but a scientific reason is not far to seek. A very large percentage of these people came into the Church through the hospital. They got their first education there. They speak of the British hospitals as Lais e-koan (our hospitals). They are the first to fall in line with any orders from the health department. Japanese officials have remarked this on more than one occasion.

My point is this: that a hospital is as essential to the development of a community as its other institutions, its schools and churches. It is obvious, of course, that a hospital will serve a much larger constituency than either of these other institutions.

2. The question of hospital maintenance, we shall dismiss with a few sentences. If you will pardon another reference to the Far East, I would like to say that a great number of the charity hospitals in China and Japan are self-supporting. In Formosa the two English hospitals have not drawn a penny from home for years. The Canadian hospital receives a very small sum yearly, which is utilized for improvements.

In the past the hospitals in the Orient were built to meet the needs of the district they served. They are getting away from that lately; following the lead of richly endowed hospitals, what we would suggest for East Toronto, is the minimum plant that would look after our needs, with plans to admit of extension and a large proportion of semi-private beds at a very moderate rate. Except in the case of greatly increased cost of living, to affect the loss through the public beds, we have always adopted the policy of increasing the number of private and semi-private wards rather than increasing the rates. In the writer's opinion there should be no yearly deficit for maintenance of a hospital East of the Don.

J. Y. Ferguson.

News Items

Medical Missions

A Medical Mission has been organized at St. John's Garrison Church, Toronto. An impressive ceremony was conducted, March 4th, to dedicate the Mission and to commemorate the men of the parish who served overseas. Impressive addresses were delivered by Bishop Roper, of Ottawa, Warden of the Sisterhood of St. John, the Divine, Bishop Sweeny, and Rev. Canon Baynes-Reid.

The Mission comprises a free clinic for men, women and children of all denominations, conducted as an Out-Patients' Department of St. John's Hospital. Dr. John T. Fotheringham will be Clinician-in-Chief, and Sister Beatrice will oversee the Mission.

Women Doctors in England

The profession of Medicine is not one which we should recommend to young women, but for years we have thought that if women wish to study Medicine no obstacles should be thrown in their way. That is generally recognized as the right thing in Canada and the United States, but, in England, the prejudices against the woman doctor appear to be increasing rather than otherwise. It was announced, March 6th, that the great London Hospital (England) had refused to accept any more women as medical students. Lord Knutsford, President of the Board, said the Governors had no objection to the medical education of women but rather to the difficulty found in teaching a mixed school, chiefly because of the sex question. Dr. Flora Murray says that the real reason is that the men in the profession fear the steady increase in the number of women doctors because the women threaten the supremacy of the men. The discussions which are taking place on the subject in England at present are certainly not edifying.

The Annual Convention of The Canadian Radiological Society will be held in Winnipeg in June in conjunction with that of the Dominion Medical Association, being held there during that month.

Lambton Medical Association

At the annual meeting of this society, held February 9th, the following officers were elected: President, Dr. W. R. Hamilton, Petrolia; Vice-President, Dr. W. Reid, Wyoming; Secretary, Dr. C. H. Smith, Petrolia; Past President, Dr. C. W. Sawyer, Watford.

The Board of Managers of the Philadelphia University Hospital is extending the age limit for Professors to enable Dr. John B. Deaver to continue as head of the Surgical Department of the University Medical School. Dr. Deaver will be sixty-seven years old July 25th, and the Board of Managers were unanimous in the desire to retain his services for some time longer.

Barnardo Home

That splendid building on Jarvis St., Toronto, formerly owned and occupied by Mr. Cawthra Mulock, has been purchased by the Council of the Dr. Barnardo's Homes' Association as a memorial building to the old Barnardo Boys who died in the War. The purchase was made through the agency of Mr. Albert Carless, F.R.C.S., late senior surgeon, King's College Hospital, London, England, who lost his two sons in the War, and, in memory of them, is devoting his life to the Barnardo work as Medical Director. The new building will be the Dominion headquarters, replacing the existing divided branches at Peterboro (where there is a girls' home) and on Peter St., Toronto. Mr. Carless, in his appeal to the profession and the lay public says: A suitable supply of healthy British boys and girls is valuable for Canada, into which the Barnardo association has introduced 27,000 children. Care is taken that they are fit, physically and mentally, before they leave the old country. The records of the Association's work in the past and the assistance given by *the boys* during the War constitute a plea that he hopes will appeal to all real friends of Canada.

Lord Athelstan of Montreal, who recently offered a prize of $100.000.00 to any student or graduate in medicine who should discover a medicinal cure for cancer, has also donated (Feb. 3) a second $100,000.00 for cancer research work.

It was definitely announced, March 21st, that Dr. B. P. Watson has decided to resign from his position as Professor of Obstetrics and Gynæcology in the University of Toronto. He has accepted the offer from the Governors of the University of Edinburgh to fill the Chair of Obstetrics and Gynæcology in that institution. Dr. Watson's Alma Mater certainly pays him a high compliment in offering him this position.

We have no definite information at present regarding a new appointment, but we think we may say there is a general feeling among the majority of the graduates that the authorities of the University of Toronto would do well to choose one of its own graduates, living among us, of whom there are many qualified to fill the position. We believe an importation from Great Britain or the United States would not be popular at present.

It was announced in the lay press, March 14th, that Dr. J. G. Fitzgerald, Professor of Hygiene, University of Toronto, and Director of the Connaught Laboratories since 1913, has accepted an invitation from the University of California to take the chair of Bacteriology and Experimental Pathology in that institution for one session, during the absence of Professor Fred Gay, who is going to Washington for one year as the chairman of the Medical Division of the National Research Committee. We have no objection to his going to California for one session, but no longer. We want Professor Fitzgerald to come back to Toronto. He is not the sort of man that we can spare. He happens to be one of the few who understand both the art and science of teaching.

We understand that he and his family will shortly go to England, where they will spend part of the summer before they go to California on or about September 1st.

We are pleased to announce that Dr. R. D. Defries, who has done such excellent work in the laboratories and University proper, as the assistant of Dr. Fitzgerald, will have full charge of the laboratories during Dr. Fitzgerald's absence.

The following were elected as officers of the Aesculapian Club for the ensuing year: President, Mr. J. H. Cameron; Vice-President, Dr. J. W. S. McCullough; Treasurer, Dr. Edmund E. King; Secretary, Dr. F. C. Harrison; Executive, Drs. J. T. Fotheringham, J. H. Elliott, W. W. Jones, Walter McKeown.

Personals

Dr. Ralph Coleman, who graduated in 1914, is now practising in Vancouver, B.C.

Dr. Walter Woodhouse, a graduate of last year, is now on the interne staff of the Hamot Hospital, Erie, Pennsylvania.

Dr. W. H. Pepler has been appointed representative of Trinity University in the Ontario Medical Council.

Dr. Wm. Hackney, who graduated from Toronto in 1897, has been for some time practising in Calgary as a specialist in diseases of the eye, ear and throat.

Dr. Margaret Patterson, Toronto's first woman magistrate, officially took her seat on the Bench beside Magistrate Cohen in the Woman's Police Court, March 6th.

Dr. Wm. Elliott, a graduate from Toronto, of 1893, settled in Saskatchewan soon after graduation. He went abroad in 1919 and spent a year in post-graduate work chiefly in London and Edinburgh. A short time ago he returned to Canada and resumed practice in Wolsley, Sask.

Dr. H. Ray Bulmer, of Toronto, has been appointed Medical Officer for the London and Pacific Petroleum Company's station at Megritos, Peru. After graduating from the University of Toronto, he acted for some time as house-surgeon in the Western Hospital, Toronto.

Dr. D. E. S. Wishart has been doing post-graduate work in Oto-Laryngology, in Boston, for nearly two years. He is now in Philadelphia taking Dr. Chevalier Jackson's special course in Bronchoscopy. After completing this course, he will go to Edinburgh for further study under Drs. Turner and Fraser.

Correspondence

Our London Letter

(From Our Own Correspondent)

February 4, 1922.

Prizes for Cancer Research. There is no disease for which a cure or a fairly successful treatment is so greatly craved as for cancer. However, a cure cannot be hoped for, or expected rather, until the origin of the malady has been found out and this result seems almost as far off as ever. The source of cancer is most elusive; bacteriology, despite rosy anticipations, has failed, it may be said completely; the efforts of pathologists to solve the mystery have proved barren; and, although biochemistry has gone, perhaps, further in the direction of raising the veil, it cannot be affirmed that it has done more than raise a corner. So far as discovering the cause of malignant disease is concerned, investigators in the field appear to be up against insurmountable obstacles. In the United States money has been poured out without stint with the object of revealing the cause, and, thus, of course, assisting in the cure of malignant disease. In Great Britain, while money has not been forthcoming with the lavish freedom characteristic of the States, the British Cancer Research Fund, maintained by philanthropic aid, has steadily plodded along and has done some very useful spade work. But the outcome, whether it has been that money has been poured out, or, whether it has been doled out with niggardly hand, has been much the same; very little real progress has been made. Nevertheless, it is obvious that lack of funds is a handicap to investigators and research workers, albeit it may be doubted if the lot of such workers is made too easy, that the output will compare favorably with that of those who are compelled to live hard lives while attempting to reach the goal.

The offers made recently by Lord Atholstan, of £20,000 and Sir William Veno, of £10,000, to stimulate efforts for the discovery of the origin of cancer are impelled by honest motives and should not be cavilled at. Medical research in Great Britain, at any rate, has been starved and every encouragement should be given to those well endowed with this

world's goods to provide generous amounts for the purpose of probing into the mysteries of obscure diseases, and, if possible, stamping them out. No criticism of the motives of the donors of the munificent sums referred to above is intended, but, on the other hand, it is as well to point out to the lay members of the community that it is impossible to hustle science and to warn them that in the case of cancer investigation they must not raise their hopes too high nor imagine that money expended profusely will solve the problem of its cause. The only thing that money can do is to aid in paving the way, and, for this reason, the gifts of Lord Atholstan and Sir William Veno are welcome. In this connection it will not be amiss to say once more with emphasis what has been said in these columns before, that the British rich men are laggards in giving money in the interests of public and individual health compared with the millionaires of the States. It is rare for a British rich man to give in hundred of thousands for this purpose, while the American business magnate, the captain of industry, thinks little of giving several millions to assist in improving the health of the masses and in raising the standard of health generally. In fact, it has been left to a Canadian, at least, to one who made his money and lived the greater part of his life in Canada, the late Lord Mount Stephen, to give a lead in this respect. In America, it seems to be well understood that it is in the best interests of the whole nation, that the working class should be healthy. A country, the mass of the inhabitants of which are not healthy, cannot be prosperous, and money cannot be made in such a country. Therefore, the rich men of America realize fully that it is their concern that the work people of the land in which they live should be healthy and contented and they rightly consider that money spent with this end in view is money well spent, regarded from the individual point of view as well as from that of the community at large.

The Advance of Psychology. Psychology is now a science and is esteemed an important branch of medical science. Sir Frederick Mott, the well-known authority on nervous diseases, declared recently that if his time were to come over again, he would give lectures on psychology as well as on physiology. In some of the chief medical schools of Great Britain, chairs of psychology have been established and the same may be said of those of the United States. Psychology is now made the subject for discussion in both medical and lay circles, indeed

the question has "caught on" and its importance is beginning to be generally recognised. Of all the writers who deal with psychology, none is more suggestive than the author of "At the Periphery" in the *Medical Press and Circular*. In three successive numbers, January 18th, January 25th, and February 1st, Frink's *Morbid Fears and Compulsions*, McDougall's *National Welfare and National Character* and Dr. Crichton Miller's *The New Psychology and the Teacher* have been subjected to a searching analysis. The neurotic is whitewashed, or rather it is pointed out that the neurotic possesses a quality of inestimable value to the community, that of driving power, and it also might have been added that he or she, of this type of temperament, is frequently endowed with a quality of brain superior by far to that of the phlegmatic, ordinary person. Also, the neurotic is imaginative and supplies a good deal of the brain power, a considerable amount of the driving power, an energy which is somewhat restless, and a goodly proportion of the imagination. A world peopled wholly by neurotics would be impossible to live in, in the same way that a world of which the inhabitants were all of the phlegmatic, common-sense type would be unbearable. The neurotics are the main factors in "making things move" while the others provide what is equally essential, the ballast. The neurotic may not be properly adapted to the environment, but it is well that there should be some who are not so adapted, who, seething with a noble discontent, according to Shakespeare, another name for ambition, seek pastures new, or some other outlet for their restrained emotions. It would be instructive to know how many of the great men and women of the world have been neurotics. Undoubtedly, these have been numerous. A statement made by McDougall on which the writer of "At the Periphery" in the issue of *The Medical Press and Circular*, February 1st, lays particular stress and from which he dissents, is that "The innate basis of mind may be far richer and more complex, than is commonly assumed by physiologists." The British writer holds that all our mental potentialities are innate. In his opinion, all our feelings are innate and have all come into being in the same way, whatever that may be, such of them as serve useful purposes having been strengthened by natural selection. Fundamentally man is a wholly instinctive being, a fact, which Professor McDougall apears to have failed to realize.. The writer in *The Medical Press and Circular* explains his beliefs as follows: "It would not be difficult to show that all our con-

sciously determined acts are initiated by some kind of feelings, under which is embraced the sensations, simple, including the appetites, perceptive, and the emotions. So far as acts evoked by sensations, such as itching and hunger, and emotions, such as fear, are concerned, this is obviously true: but it is also true of the sublimated form of feeling spoken of as conscience, the feeling, namely, for such it is, which prompts a person to act in accordance with his particular moral code. Throughout the entire range of consciously endowed creatures, the feelings constitute the psychic motors; fundamentally all consciously determined acts are brought about through their agency. On ultimate analysis it will be found that the essential function of the intellect is to give effect to such feelings as cannot otherwise secure their goal. Now all the multitudinous feelings of which we are capable are instructive. We are endued with their potentialities when we enter this stage of fools. From which it follows that all our acts are fundamentally instructive. One reason why this truth has not been realized is because individual humans differ so much as regards the nature and range, both of their feelings and their environment. Did all human beings feel exactly the same, and were they all subjected to exactly the same external conditions, they would all act in exactly the same stereotyped way, just as each species of so-called instinct-led creatures do."

The author then goes on to point out that in whatever way our feelings may have evolved, and no wholly satisfactory explanation of this evolution has been given, there can be no doubt that each of them, so far as it has proved serviceable to adaptation, has been strengthened by natural selection. The question of psychology, particularly in its remote bearings, gives one furiously to think and the views recently expressed in "At the Periphery" delve into and illuminate the subject very considerably.

Sir German Sims Woodhead

A very well-known man of science passed away with tragic suddenness on December 29th last in the person of Sir German Sims Woodhead, K.B.E., Professor of Pathology in the University of Cambridge, who died from heart trouble. Although it was known that he was in failing health, the news of his death came as a great shock to his colleagues and numerous friends. He was born in Huddersfield, Yorkshire, and spent his medical student days at Edinburgh University, where in 1878 he took the degrees of M.B., C.M. In 1861 he became

M.D., obtaining the gold medal for his thesis. He also studied in Berlin and Vienna and in 1882 became F.R.C.P., Edin. Woodhead was an all-round man, and was prominent in sports and games as in his medical studies. He was president of the University Club for several years, played rugby-football for the University and eventually was given his international cap for rugby-football. He was an uncommonly fast sprinter and there is a tradition that he was "clocked" to do the 100 yards in 10 seconds dead. In 1914, at the outbreak of the War, Woodhead placed his services at the disposal of the War Office. After filling various positions, in 1917 he was appointed Inspector of Laboratories in Military Hospitals in the United Kingdom. For his military services he received the K.B.E., in 1919. Before he was appointed to the Chair of Pathology in the University of Cambridge he was successively, Demonstrator of Pathology in Edinburgh, Research Scholar of the Grocers Company, Superintendent of the Laboratory of the Royal College of Physicians, Edinburgh, and Director of the Laboratory of the Royal College of Physicians and Surgeons in London, which post he held until he went to Cambridge in 1890. He was a very capable organizer and it was fortunate in one way that this was so, as in all the positions he occupied it was his lot to have to place them in proper working order. Professor Woodhead throughout his career was greatly interested in tuberculosis and was a member of the Royal Commission On Tuberculosis appointed 1902 to test and pass on Koch's view that human tuberculosis differs from bovine and cannot be transmitted to cattle. In 1902 he was elected Honorary fellow of the Henry Phipps Institute, Philadelphia, founded for the study, treatment and prevention of tuberculosis. In 1905 he was awarded the Gold Medal by the Sixth International Congress on Tuberculosis sitting in Washington, for a collection of specimens showing the changes produced by tuberculosis in various organs, both in human and animal subjects. He was the author of several books. Whilst in Edinburgh he published the first edition of his well-known work—"Practical Pathology". In 1885 he published "Pathological Mycology" and in 1891 a work on "Bacteria and their Products." In 1920 he published in collaboration with Dr. Varrier-Jones, a book entitled, "Industrial Colonies and Village Settlements for the Consumptive." Woodhead was the first editor of the Journal of Pathology and Bacteriology, the official organ of the Pathological Society of Great Britain

and Ireland. Although his main interest lay in the study of tuberculosis and diphtheria, he concerned himself considerably with modern studies of diseases of the heart. He was a kind, able, and sympathetic teacher. Indeed, he was always overflowing with charity. Woodhead was a large-hearted man in the widest sense of the word, and no one can read the noble tribute to him by Sir Clifford Allbutt in the *British Medical Journal,* January 7th, last, without feeling that every word written comes from the heart and is absolutely true.

Woodhead, for some time in Edinburgh, was first assistant to that very great pathologist, Professor William Smith Greenfield, and, therefore, was trained in a good school. Dr. Carnegie-Dickson, who was the late Professor Greenfield's son-in-law and his assistant, and who, also together with Professor Beattie, has written the best text-book on pathology in the English language, gave the writer of this letter a few intimate details of Sir German Woodhead. Only ten days before his death he was in Mr. Dickson's house discussing with Mrs. Greenfield the best means of making a success of the Greenfield Memorial Prize. Dr. Dickson says that Woodhead was one of the most lovable and truest of men and always ready and willing to help others in any way in his power. He was so large-hearted in his charity that he was regarded by some as simple, but, although he was imposed upon frequently, it was not because of his simplicity, but because he had so strong a faith in human nature that he preferred to be possibly deceived than to run the risk of refusing to help the deserving.

Woodhead was an ardent advocate of temperance but he was, also, possessed of a keen sense of humor and one of the little episodes, which used always to delight the guests at the dinners of the Pathological Society of Great Britain, was when dear old Woodhead was called upon to sing "At the Tavern Door." He would rise with a self-deprecatory smile, push his fingers through his hair, so as to give himself a most disreputable appearance and proceed to delight the company with the song. In it were explained the pleasant effects and otherwise of alcohol, how the observer from the said tavern door was able to observe two moons and other curious phenomena, and how, after such observations, he turned back into the tavern for "another." This episode showed the kindly and tolerant nature of the man. In short, it may be said of Woodhead that he was a man throughout, a first class

man of science and like most great men of a kindly, unselfish disposition, who did unto all men as he thought they would do unto him.

Practitioners and Visiting Nurses

To the Editor of the CANADIAN PRACTITIONER.
Dear Sir:

I have just been re-reading the discussion regarding the treatment of the family physician by the nurses of the medical health office staff. I believe that the Medical Health Officers claim that nurses are ordered by the doctors on the staff to advise the family of a child whom they are visiting to call in their family doctor. May I take up a little of your valuable space in giving to the profession three or more instances of how this works out?

A short time after that article was written, a boy in a family I attend was sent home by the school nurse in the forenoon. He was reported not well, and a note was sent with him stating that the school doctor would be sent up some time that day to see him. The mother reported the matter to me, telling me that she did not want the school doctor, but that she wished me to call to see him in the afternoon. I went up at four o'clock, to find that the school doctor had been there before me, although he was not wanted, nor was he needed.

Just a few days ago I had another experience. A baby in one of the families I attend was not doing at all well. It had been down to the baby clinic several times, and had been weighed, etc. The nurse visited the baby several times, and advised various treatments, but the baby continued to fail, and at last the nurse advised the Children's Hospital. In spite of a great deal of insistence the mother refused to send it to the hospital. Then, and not till then, was she advised to get the family doctor. Had it not been for the fact that she trusted the nurse, the family doctor would have been there two or three weeks before. This baby was badly in need of the family physician's advice, which should have been given much earlier. The mother in this case is a perfectly capable woman, and would not have allowed her baby to go so long without the doctor if she had not had full confidence in the nurse.

Still a third case: a family whom I attended had a very fat, healthy baby in their home. The nurse called two or three times and urged that the baby be taken to a clinic. The mother said "No; I have my own doctor for all medical treatment." This family, I may say, were very comfortably situated. After the mother had definitely refused to take the child to the clinic, the nurse asked permission to bring the clinic doctor to the house. This also was refused. The only motive, apparently, was to get the clinic doctor introduced into the house.

These are only a few instances of many I have experienced, and, indeed, I have reported many of them long before this.

The fourth case, I think, does not come under Dr. Hastings' work, nor do I think that the nurse in the case was one of the health office nurses. In a home where a baby had been adopted, a nurse, who had heard of the adoption, went to the house to see if the mother would not allow her to come in every day or so and advise about the care and feeding of the baby, for $10.00 a month. The mother was taken with the idea, and, in four months, paid the nurse $40.00. Then, when the baby had wasted away badly, because of improper nourishment, and insufficient food, the mother brought it down to me and told me why she had not come to see me before.

I should like to hear what the profession as a whole thinks of the education of the public along these lines. Is the sending of these nurses into homes giving the public the impression that the nurse knows as much as the doctor, and their attendance is usually free? Nurses while very estimable in their own way, cannot, at any time, replace physicians in diagnosis and treatment of diseases. They are not educated along such lines. Is it not a rather dangerous step, and one calculated to give the public over-confidence in nurses, to allow these things to continue? If nurses are going to take charge of the medical branch of our profession, would it not be wise to insist on their taking a complete course with the same standards and degrees as we are obliged to take? On the other hand, if doctors are going to be shut out of half of what is their right, by virtue of the years they have spent in study, and the heavy expense of a medical education, would it not be wise to limit the number of young men entering the profession to a very small number, and confine that number to specialists only, as very few can afford to take such an expensive course without prospect of decent remuneration. This is true also of country places as well as the cities. In prosperous neighborhoods community nurses are often sent for instead of the doctor at first, and

several visits are made by the nurse which should have been made by the doctor. All this happens in neighbourhoods where to a man almost, they are able to pay.

In conclusion I should like to say a few words about so much free treatment. After eight or ten years of constant expense a young man starts out to make his living. He, as well as older ones, has not only to attend the so-called poor free of charge, but also he is paying taxes to help support them while he is giving it. I know good homes in Toronto where children are taken down to the Children's Hospital to the free clinic for tonsillectomy, etc., because as they say, we can have it done for nothing. As one woman expressed it, "We have to pay taxes; why should we not get something for it?" The same thing applies to all other hospitals. Is it not time that something was done by the profession as a whole to bring about a change or else curtail very seriously the number of students entering, because of the utter inability of making the medical profession profitable, and of meeting the necessarily heavy expenses. Better to never allow them to spend the money at all.

I should be interested to hear the views of some of the other doctors on this subject, as I have talked with several who have had similar experiences.

WEST-END DOCTOR.

Hospital Abuses

To the Editor of the "CANADIAN PRACTITIONER,"
Dear Sir:

A deputation has recently appeared before the City Council advocating the building of a hospital in the Riverdale section. One would gather from the newspaper reports that the proposal was not very favorably received, inasmuch as the Board of Health had reported that on a certain date there were some 200 vacant beds in the Toronto hospitals. We understand that an enquiry is to be made into the hospital situation in Toronto, and, if this is carried out, it is to be hoped that the investigation will be far-reaching and that evidence will be solicited from the man in general practice to whom the problem is a very real one.

One would like to ask: where were these 200 vacant beds? Ask any group of practitioners and they will tell you that it is only after great delay that hospital accommodation can be obtained for their average patient. Expensive private rooms

may be available, but that does not help the average self-respecting citizen who is anxious to pay his way. It is true that probably the majority of public ward beds are filled by foreigners. What is required is a place where without any frills the average citizen can go when ill, and be attended by his own private physician. With the present rates of $25.00 per week and up for semi-private beds, and $35.00 to $100.00 per week for private, what opportunity is there for the needs of this class to be filled?

The Toronto wards are closed to all those not on the hospital staff. Why should this be? We are told it is because of the University teaching. Why should the taxpayer of Toronto, including the physicians, have to support large teaching hospitals for the aid of the Medical Faculty of the Provincial University?

The Vancouver General Hospital is said to be the best conducted hospital in Canada. At its head is a most efficient medical superintendent, and any practitioner in good standing can attend his patients there. A strong medical head takes care of the question of this privilege being abused.

Another problem which an investigation might answer is to what extent certain of the City hospitals are themselves "practising medicine". It is said to be a fact that certain commercial firms are in the habit of sending their employees—rich and poor alike—to the out-patient department, for treatment by the unpaid, honorary staff of the hospital, the firms in question remunerating the hospital for this privilege. If this be true, it is a worse condition of affairs than so-called Health Insurance, where at least the physician receives some remuneration.

Many of the special departments of hospitals might have some light thrown on their "modus operandi," where patients, both private and public, are referred. The hospital collects a fee from those able to pay, out of which, it is stated, the salaries and expenses of the department are met. The public, and particularly the medical public, would like to know, why any department is so conducted as to be in direct competition with the private practitioner, who must pay for his office rent, upkeep, equipment, etc., and, incidentally, pay taxes to support the hospital which is competing with his livelihood.

The whole question of the abuse of the out-patient departments of hospitals by those well able to pay is, of course, an

ever-present one. One would think some method could be devised whereby fur-coated and bejewelled patients would not be encouraged.

These are some of the questions which a hospital investigation should answer. Others could be mentioned. Among any group of general practitioners one finds these problems constantly discussed. If the application for the east-end hospital helps to clear the air in these respects, it will have accomplished a great deal.

Yours,

"OBSERVER."

Treatment of Acute Suppurative Pleurisy

Hitzrot and Weedon (*Annals of Surgery*) conclude as follows: 1. In the case of suppurative pleurisy due to the pneumococcus, proper drainage instituted early and maintained long enough produced a satisfactory cure. 2. In the cases of suppurative pleurisy due to the streptococcus there were more underlying lung conditions (abcess, etc.) which required more varied treatment, and secondary operations were more frequent. 3. The average stay in the hospital for the uncomplicated cases in this series was thirty-two days. This includes the cases due to the bacillus typhosus but not the deaths, the unsatisfactory results, or the cases submitted to secondary operations.—*New York Medical Journal.*

The Pros and Cons of the Full-Time System in Medicine

Some criticism has recently been directed at the administration of the Medical Faculty in respect to the inauguration of full-time professorships in the clinical subjects, Medicine and Surgery. A controversy which at times became quite vituperative began in some of the medical journals and spread to the daily press of Toronto. The present article is in no sense a contribution to the controversy. It is intended simply to give the laymen some idea of "what it is all about" and to set forth the facts of the situation.

Inquiries were made of students who had experience under both systems; and statements secured from two prominent medical men, one strongly in favour of the full-time system, and the other fundamentally opposed to it.

For many years full-time instructors have been employed in Anatomy, Pathology, and Biology, but it is only within recent years that full-time men have been engaged in the clinical subjects, Medicine and Surgery. On this continent the system was first installed at Johns Hopkins where it has been in force for some seven years. It is claimed, however, that even there it has not yet definitely passed the experimental stage. Some of the medical schools in which men are mainly and entirely in charge of medical and surgical teaching are: *English,* University College Hospital, London Hospital, St. Bartholomew's Hospital, St. Thomas' Hospital, St. Mary's Hospital; *American,* Johns Hopkins Medical School, Washington University, St. Louis, Indiana University, University of Michigan, Columbia University Medical School, University of California, Yale University.

Before proceeding further it would be well to define what is meant by full time clinical instructors. As a matter of fact "full-time" is a misnomer as applied to the system at Toronto and in most of the American schools. In Toronto the full-time man in the Medical clinic must devote from 9a.m. until 4.30 p.m. to his hospital and academic duties, but during the remainder of the day he is free to engage in private practice within or without the hospital. In several of the medical schools of the United States the full-time man gives all his time to hospital or academic duties, or if he does see other than public ward patients these must come to the private wards of the hospital to which he is attached, and the fee which they are charged is collected by the hospital and

used for the development of the clinic. In other schools the privileges of private practice are even less definitely defined, the understanding simply being that the full-time man will regard his medical school work as his chief vocation.

At Toronto the full-time system in Clinical Medicine was installed two years ago, and last autumn it was inaugurated in Surgery. In Medicine there are five full-time instructors—the head of the department and four assistants. In addition to these there are thirty part time clinical instructors, practising physicians, who (at present without remuneration) conduct certain clinics under the direction of the head.

Members of this year's graduating class who have had experience of both systems seem on the whole to be in favour of the full-time system. They find the work well organized and classroom and clinical teaching well co-related. On the other hand the majority of students express a preference for the teacher who is in close touch with private practice and can constantly draw on his experience for illustrative purposes.

Editor. Univ. Monthly.

Advantages of the Full-Time System

By One in Favour of It.

The disadvantages of the part-time system in clinical subjects may be divided into two groups or categories. In the one, which we may call general, is the indubitable fact that instructors have acquired their knowledge of disease solely by observation of symptoms, through the experience of clinical practice, cannot be in a position to direct the student's mind to seek out the underlying cause of the disease which is responsible for the symptoms. A teacher of this class, unless he be of exceptional ability, cannot expect to be able to stimulate in the student that enquiring habit of mind which alone will enable him to advance abreast of medical scientific knowledge, and unless our students are stimulated by their instructors in this way, we cannot expect them to become better physicians or surgeons than their instructors.

The second group of disadvantages are of a more *practical* nature and the chief of them may be enumerated as follows:

1. The demands of private practice must as a rule take precedence to those of the teaching clinic if the physician or surgeon is to build up and retain a large clientele. This principle is so well recognized that teaching appointments must often be considered as secondary to "urgent calls" from private patients.

2. The day of the general practitioner is usually so completely filled with the duties of his practice that he has but little time or energy left for the perusal even of the general medical journals and still less for serious study of the special journals and monographs in which the discoveries of modern medical and surgical science are expounded.

3. Under the conditions set forth above it is impossible for one man who is primarily engaged in practice to undertake control of all the teaching of medicine or surgery. This has to be divided among several, with the result, as experience shows, that there is but little correlation of instruction and the student often completes his course with a very poorly balanced knowledge of disease. With no one of the group of senior instructors personally responsible for seeing to it that the whole vast field of medicine or surgery is adequately covered and the instruction properly graded and correlated, it is inevitable that the instruction must be one sided. Under the part-time system, the hospital wards are usually divided into several services with a physician or surgeon in charge of each, and the students are sent either in groups throughout the year or as a whole at different periods of the year to the services with no one of the service heads endowed with sufficient authority to see that the instruction on one service is properly correlated with that of another.

The following are among *the most striking benefits of the full-time system*:

1. The instruction of the various parts of the subject is properly co-ordinated and systematized. Under the guidance of the head of the department, the various instructors meet frequently to discuss questions of policy in teaching, particularly with regard to nomenclature and classification of diseases and symptoms, theories of etiology, principles of treatment, etc. Unless someone is given paramount authority to require this correlation of teaching, it can never be successfully effected and without it the student is bound to get a poorly balanced course of instruction and to be bewildered by the divergent views of his different teachers. Experience has shown that this can be done without sacrifice of individuality in teaching.

2. The examination system is unified so that there is little chance of poorly trained students slipping through.

3. The cases in the wards are assigned by a carefully administered system to those men who are best qualified to

treat them, and every aid to diagnosis is provided for by the team work of a group of specialists who are constantly working together.

4. Classes are not missed because the instructor is detained by a private case which it is impossible for him to leave. However well a service consisting entirely of part-time men be organized, this missing of classes is inevitable.

5. The students are brought in contact with different types of teachers at proper stages in their educational progress. They are not asked to wander aimlessly in out-patients departments before they have become familiar with the principles of diagnosis in the wards.

6. All the clinical material of the hospital being available, it is possible to show to the entire class, cases that are illustrative of all the commoner diseases. Under the old system it was not infrequently the case that many students went through their course in Medicine and Surgery without actually seeing many types of disease.

Fundamental Weaknesses of the Full-Time System

By One Opposed to it.

1. Full-time professorships and team or group practice are devices evolved in the attempt to bridge over the gap between the man in the trenches (the doctor in charge of sick folk in the home—and 95% of all sickness must be cared for in the home) and the G.H.Q. at the Base (the research laboratories on which progress in Medicine depends).

The lines of communication have been enormously extended in the past fifty years, and particularly in the past ten years, by the developments in Physics, in various branches of Chemistry, in Embryology and other special departments of Anatomy, in Physiology, in Psychology (if it can be called a science), and in other directions.

2. Workers in these latter fields have as a rule no sense of proportion. They fail to remember that the human mind is finite, and that the day is long past when any one living man can cover more than a fraction of the fields they are exploring. Confusion of thought has arisen, and they have forgotten that *quâ* Medicine their subjects are only a means to an end, not an end in themselves. They have erected their research, usually conducted on abstract lines, into an industry which they believe to have a right to exist on its own account. This position the physician or surgeon responsible for the lives

of his fellow creatures can never admit to be either sound or justifiable in the relation between science and the healing art. Hippocrates, born 460 B.C. and in a pagan community, in one of his aphorisms puts the question right for all time when he says that "It is the duty of the physician in undertaking the care of a sick person to place the sick man and his friends and all his surroundings in train for his recovery."

3. Another confusion of thought has emerged in the failure of the pure science school to differentiate, in the curricula which they prescribe, between the scope and methods of teaching which suit the ends of the investigating and "researching" graduate, and those applicable to the floundering undergraduate. Cognate with this error is the very erroneous idea that research work in these subjects ancillary to Medicine is of itself cultural, and humanizing, and broadening. On the contrary the product obtained by these methods is, so far as contact with the sick is concerned, very apt to be a mere arid scholasticism rather than a humane and helpful scholarship capable of providing what the sick chiefly need, *i.e.*, moral support and relief in their times of fear and pain. The system is much more apt to produce technicians than clinicians.

4. This is very far from saying that research in general is not desirable; it is both desirable and necessary, but must be made to occupy its proper place in the scheme of medical training. Without it, progress, real progress that is, in Medicine is not possible. But the full-time professor, and his adjunct, the group or team system of teaching and practice, not only fail to give to the patient what he most needs, moral support, but fail to provide for the public a type of practitioner who can, without the technical skill required of the modern physicist or physiologist or chemist, appropriate for clinical uses in his contact with the sick the useful part of the research man's work, and be a source of comfort and encouragement and relief to the public whom he serves.

5. The teacher of Medicine would do well to note the synchronizing of the modern drift of the public to the irregular healer, to quacks and wonder workers and untrained pretenders, to Spiritualism and Christian Science (*sic*), with the advent of our modern methods of teaching, and present day ideas of the relative importance of the various subjects of the medical curricula of the day. There is more than mere coincidence in it, though it is not intended to imply that the one is the sole cause of the other.—*University of Toronto Monthly.*

Obituaries

George A. Bingham, M.B., M.D., C.M.

We regret to report the death of Dr. George A. Bingham, one of the best known surgeons of Toronto. He had been in indifferent health for some months and was about to leave for the South on a holiday when he was taken suddenly ill with a widespread, right-sided pleurisy and pneumonia on Feb. 9th. The pneumonia ran its course more satisfactorily than might have been anticipated, the lung clearing up very well, but after a pseudo-crisis he gradually developed symptoms of exhaustion, became comatose and passed away on March 3, 1922.

Dr. Bingham, son of the late William and Elizabeth (Mills) Bingham, of Irish parentage, was born in the County of Durham, Ont., August 28, 1860. As a boy he attended the public school and later the High School at Bowmanville, qualifying as a public school teacher, in which capacity he served as headmaster of the Harriston Public School for some years. He entered Trinity Medical College in 1880, and after a distinguished undergraduate career, graduated M.D.C.M. Trinity University, and M.B. University of Toronto in 1884. After studying for a time in New York he settled in Toronto and was appointed Demonstrator of Anatomy by his Alma Mater, which position he held from 1884 to 1889. In 1890 he was advanced to the post of Professor of Practical Anatomy and on the death of Dr. Hugh Robertson in 1892 he was made Professor of Surgical Anatomy in succession to Dr. Luke Teskey. He was a member of the staffs of the Toronto General, St. Michael's and the Sick Children's Hospitals and was advanced until he held the position of full surgeon to each. He was appointed Professor of Clinical Surgery in Trinity Medical College and on the amalgamation of the medical faculties of Toronto and Trinity in 1903 he became Professor of Clinical Surgery in the new faculty and chief of one of the surgical divisions of the Toronto General Hospital, which positions he held until the time of his death. He was for a time member of the senate of the University of Toronto; was a past president of the Ontario Medical Association, the Toronto Clinical Society and the Aesculapian Club of Toronto and a charter member of the Academy of Medicine, Toronto.

In his death the Academy of Medicine has lost one of its most distinguished Fellows. The writer can remember him since 1888, when as a freshman he met him as Demonstrator of Practical Anatomy in the old Trinity School. His striking figure and personal magnetism made him a great favorite with the students. He was then, as always, handsome in appearance, the personification of dignity, with a massive head, broad forehead and a countenance expressive of great intellectual capacity.

Dr. Bingham was a brilliant student; a teacher of outstanding force and clearness of expression; a surgeon of the first rank, whose operative work was based on a thorough knowledge of anatomy. He had excellent clinical judgment and was fearless, though conservative as an operator.

He always appeared to the writer to have easily the finest voice and to be the most ready and eloquent speaker in the ranks of the local profession. He was uniformly kindly, courteous, generous and ready to help a confrere and was notably free from academic "loftiness." There was nothing of meanness, smallness or pettiness in Dr. Bingham's nature. He had a philosophic outlook on life; was a lover of good literature and, what may be unknown to many—was something of a sermon-taster, being a regular attendant at the evening service of old St. Andrew's Church. We shall attempt no laudation of his character; the warm place he held in the hearts of his colleagues is an all sufficient tribute.

H. B. A.

Harris Graham, B.A., M.D.

Harris Graham, B.A., Toronto University, M.D., Michigan University, thirty-three years Professor of Pathology and Practice of Medicine in the American University of Beirut. died at his post in Beirut, Syria, February 27th, in his sixtieth year. He was born in Ottawa, Canada.

W. T. Wallace, M.B.

Dr. William Wallace, M.B., (Tor. 1902), of Waterloo. died suddenly, February 26th, aged 43. He was found dead in his bed in the morning, having expired during the night, after an illness of several weeks.

A frank talk about Postum to the readers of "The Canadian Practitioner"

Every doctor and nurse knows that caffeine—under certain conditions, or used to excess—may prove a source of extreme detriment to the nervous organism, and to the digestive function.

Caffeine, in overdoses, excites irritability of the sympathetic nervous system and unduly stimulates the cerebral cells.

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Arthur James Goold, B.A., M.D.

Dr. Arthur J. Goold, of Waterford, died March 5th, aged 63. He graduated from Queen's University, B.A. in 1883, and M.D. in 1890.

John Wilson Wood, M.D.

Dr. J. W. Wood died suddenly at his home in Lindsay, March 2nd. He graduated M.D. from Victoria University in 1869. After practising for a number of years in Kirkfield, he removed to Lindsay.

Henry Turner, M.D., L.R.C.S., Ireland.

Dr. Henry Turner died in Victoria, March 5th, aged 94. He came from Cork, Ireland, in 1852, and practised in Millbrook for forty-eight years. He went to Victoria twenty-two years ago.

DR. JUNIOR: "*What is your opinion about the absorption, through the normal integument, of medicinal substances?*"

DR. SENIOR: "*I am of the same opinion as Leonard Williams of London, E. H. Ochsner of Chicago, and others who have made conclusive experiments showing that the skin admits certain substances, which later enter the circulation.*"

DR. JUNIOR: "*I read an article by Williams—'Common Aids'—*"

DR. SENIOR: "*In which the famous British physician shows his 'common sense' in making practical and efficient use of Antiphlogistine, which he had believed to be a 'mere clay poultice.' You remember his conclusions in regard to absorption of remedies by the skin?*"

DR. JUNIOR: "*Yes, but I don't recall Ochsner's paper—*"

DR. SENIOR: "*Here it is, 'Biochemistry of Topical Applications' read before the Southern Surgical and Gynecological Ass'n.—'Osmosis is not dependent on the semi-permeability of the membranes, but on the chemical affinity different substances have for each other. Concentration of the solution is also an important determining factor. Clinically, laboratory experiments can be duplicated by using solutions of boric acid and water as a wet dressing. A saturated solution of boric acid when applied to the skin will invariably appear in the urine in appreciable quantities within an hour', and so on Now—Antiphlogistine has a decided osmotic action and it contains boric acid in combination with Oils of Eucalyptus and Gaultheria—all three non-toxic-antiseptics—*"

DR. JUNIOR: "*I see—what was at one time looked upon as an empirical, blindly-applied remedy, seems to have been proved to be a scientific, practical therapeutic measure—*"

DR SENIOR: "*Which welcomes the broad daylight of scientific investigation. Ask the* ***Denver Chemical Mfg. Co., Montreal, to send you an osmotic action card. You'll find it worth while.***"

Abstracts

Negligible Glycosuria; By O. Leyton, *The Practitioner*, February, 1922.

The average quantity of dextrose in the urine of healthy people is in the region of 0.02 per cent. As a rule, it needs 0.1 per cent. of dextrose to produce a definite reduction with Fehling's solution. Not every person who has a definite glycosuria is suffering from diabetes mellitus, although it is wise to assume that he is until sufficient data have been collected to prove the contrary.

A comparatively small number of healthy human beings excrete about 0.5 per cent of dextrose in their urine; this may be considered either a fault in their metabolism similar to alkaptonuria and cystinuria, or a fault in their structure like webbed fingers and hare lip. This is sometimes known as "Glycosuria without hyperglycæmia"—a cumbersome term, but "Negligible glycosuria" has the advantage of describing the complaint, although it does not refer to any pathological cause; but since the pathological cause is unknown, perhaps this is no disadvantage.

The peculiarity of the disease is that the individual passes a urine which contains from 0.1 to 1 per cent. of dextrose. This amount remains practically constant in the same individual, regardless of the quality or quantity of food taken. The percentage of sugar in the blood is seldom above 0.15%. Such cases might be considered early stages of diabetes mellitus, but as there is record of only one case of renal glycosuria which has developed diabetes mellitus, this argument has little foundation.

Negligible glycosuria is not associated with any symptoms whatever, and, therefore, the condition is discovered when a routine examination is being conducted for life insurance or some other cause. The recognition of the condition is important, not only in order to prevent healthy individuals from being treated as diabetics, but also to meet the argument occasionally raised by true diabetics when they are beginning to forget the benefits derived from correct treatment; sometimes they state that they know a Mr. X. who was diagnosed as suffering from diabetes mellitus twenty years ago—that for a time he was placed upon a strict diet which did not suit him, since

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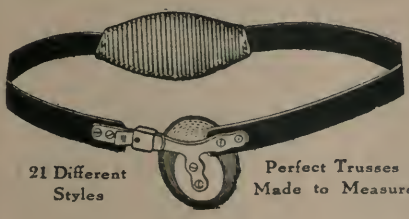

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his health became impaired; so he ate whatever he liked and had done so for years, and was quite well. It is wise to point out that in all probability Mr. X. did not suffer from diabetes mellitus, but was a case of negligible glycosuria.

To those who have not studied negligible glycosuria, it might seem probable that the condition might be due to a sudden but short rise of blood-sugar after a meal, causing glycosuria for a brief period, and that the amount of sugar is diluted with that which is normal. There are at least two reasons for discarding that view—one, that in the majority of cases there is no relation between the sugar in the urine and the diet; and two, sugar is secreted by the kidney when the blood sugar is normal.

Negligible glycosuria, might, perhaps, be called "adietetic", whilst all dietetic glycosuria, as far as we know at the moment, is of distinct importance and must be treated.

Acute Abdominal Conditions; By Lancelot Bromley, *The Practitioner,* February, 1922.

By an "Acute Condition" one implies sudden onset and rapid progress, and this means, especially in the abdomen, a dangerous illness; this rapid progress is the predominant factor in determining the necessity for immediate treatment. No illness can be effectively treated until the diagnosis is clearly established. In an acute abdominal case, with its sudden onset, early diagnosis is rendered extremely difficult, and yet a diagnosis should be made at the earliest moment possible.

With regard to differential diagnosis, one must, in a case which is apparently abdominal, in the first place exclude diseases of other parts with which are associated abdominal symptoms; examples of which are locomotor ataxy, lead poisoning, and pneumonia. The first symptoms and signs of pneumonia are frequently abdominal, and signs in the chest are often delayed, leading to considerable difficulty in diagnosis. However, the guiding sign in these cases is a decided increase in the disease. In a true abdominal case, one may roughly group symptoms and signs under four headings:—

(1) Those of colic, including intestinal, biliary, and renal.

(2) Those of inflammation leading to peritonitis, with, or without, perforation.

(3) Those of intestinal obstruction.

(4) Those of internal hemorrhage.

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Occasionally, immediate surgical treatment is advisable in cases included in the first group; but, in the other three groups, immediate operation is almost invariably necessary. The essential features in cases of inflammation leading to peritonitis are:—

Abdominal pain, with rigidity especially over the site of inflammation.

Vomiting.

Increased pulse-rate and rise of temperature.

Those of intestinal obstruction are:—

Abdominal pain, with distension, and perhaps visible peristalsis.

Vomiting, becoming fæcal.

Increased pulse-rate.

Those of internal hemorrhage are:—

Abdominal pain, with some rigidity and distention, and perhaps signs of free fluid.

Increased pulse-rate.

Pallor and restlessness.

Treatment in these conditions can only be operative, in order to remove the offending cause and to relieve its effects.

Medical Education: Deaver, J. B., *Surg. Gyn. and Obst., Feb., 1922.*

We must deplore, therefore, anything which detracts from that high standard of service to the community which the community has a right to demand, in view of the extraordinary freedom and power which it has conferred upon us. To me the plan for full-time salaried chairs for clinical branches smells of the midnight oil of the theorists (to say nothing of the oil which has lubricated the ways for its launching). It has in it none of the red blood of the real administrator working to get results with humanity as God made humanity. In its application as I have witnessed it, the plan shows no appreciation of the fact that the head of a clinical chair must be a clinician. Is not the clinical art also a science? Does it not rest upon knowledge and does it not depend upon aptitude, ability, experience, and hard work? Can any one become a clinician by merely calling himself or being called by that name? Does appointment to a professional chair make him a teacher? Or is it no longer true that in addition to knowledge which is not so common a pos-

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session, the successful department head must have qualities of personal integrity, stimulating personality, and administrative ability?

If I mistake not there are signs of returning sanity. The domination of those who have shown their inadequate grasp of the whole problem is being loosened. Let us hope that the education of our youth will be entrusted to men who are outstanding figures in the field which they are presenting to the impressionable mind. Let us all fully realize that science is the beginning of practice and that practice is the goal of science.

The Clinical Aspect of Hypertension.—By L. Thorne.

There is a marked difference of opinion as to the most judicious treatment of hypertension. In a general way, there are two schools of thought, that which advocates the administration of drugs to reduce the tension, and that which adopts a plan of non-interference. Thorne justifies both theories in differing conditions, and makes the following clinical classification of cases of hypertension:

Class I.—Cases of pre-sclerotic hypertension in which the heart is not dilated and has not given way under the unusual strain.

Class II.—Cases of sclerotic hypertension in which the heart has not given way under the unusual strain.

Class III.—Cases of pre-sclerotic hypertension in which the heart has given way under the unusual strain, and is therefore more or less dilated.

Class IV.—Cases of sclerotic hypertension in which the heart has given way and is more or less dilated.

These four conditions are described in detail, and the author then points out that the signs and symptoms in Classes I and II, in which the heart has not given way, are markedly different from those in Classes III and IV, in which the heart has given way, and that, whereas, in the former they tend toward hemiplegia and other conditions due to high tension and diseased and defective vessels, in the latter they terminate with dyspnoea, anasarca, and other manifestations of cardiac failure. It is obvious, therefore, that it is impossible to deal with such cases until they have been classified.

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Class I.—Advocate rest, fresh air, exercise, light diet; eliminate any toxic poisoning; avoid vasor depressors.

Class II.—Use drugs to reduce blood pressure; keep in mind the possibility of a specific history and administer iodide; advocate mineral baths at a specially selected spa; prescribe a very sparing mixed diet with a little meat.

Class III.—Avoid drugs to reduce blood pressure; prescribe cardiac and general tonics; Digitalis is not counter-indicated. Diet should be light but not so sparing as Class II.

Class IV—Cardiac depressants are counter-indicated; prescribe rest and cardiac tonics, and, if the case is not too far advanced, advocate a carefully administered course of mineral baths.

Obstetrics.

Peritonitis.—J. E. Deaver, *N. York. J., 1921*

The author introduces his article with the statement that the salient points of a subject so important as peritonitis do not suffer from being repeated from time to time.

He describes the mechanism of the equilibrium between exudation and absorption which, in the absence of a pathologic process, prevents the accumulation of even a small amount of free fluid in the peritoneum. In discussing the types of peritonitis he states that he is inclined to believe that the so-called chemical and the idiopathic peritonitis are really infective. The bacterial flora of peritonitis is generally a mixed one.

The dangers of purgation in early peritonitis, as for instance in early appendicitis, are emphasized, as are also those of poor selection of cases or stages of appendicitis in which to operate.

When an abdomen is opened in a badly infected case in which the peritoneum in the immediate vicinity of the lesion is green and there is foul-smelling pus, the infected cavity should be surrounded by a rubber dam or oiled silk and lightly packed with gauze, the wound being left open but silkworm gut being carried through the margins and tied loosely to prevent protrusion of the intestines. The packing should remain in place for several days. Purgation is as ill advised during the postoperative treatment as before operation.—*Surgery, Gynecology and Obstetrics.*

ERGOAPIOL (Smith) is a singularly potent utero-ovarian anodyne, sedative and tonic. It exerts a direct influence on the generative system and proves unusually efficacious in the various anomalies of menstruation arising from constitutional disturbances, atonicity of the reproductive organs. inflammatory conditions of the uterus or its appendages, mental emotions or exposure to inclement weather.

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The Implantation of Tendons.—W. E. Gallie, *Am. J., Surg. 1921,*

Gallie states that wounds of tendons heal by ordinary scar tissue which is produced by the areolar membranes on the surfaces and the connective tissue trabeculæ which separate the bundles of fibers. This scar tissue when subjected to strain is apt to stretch unless it is present in considerable amount.

To unite tendon to bone as is tendon fixation or transplantation it is necessary to place the tendon in close contact with the bone over a considerable area in order that the scar tissue may be strong enough to withstand the anticipated strain. It is necessary also to remove all the areolar membranes from the surface and it is best to split the tendon in order that the raw surface may come in contact with the bone.

To unite tendon to tendon the raw surfaces must be placed in contact over a sufficient area to insure the required strength in the scar. This may be done conveniently by braiding or splicing one tendon into the other.—*Surgery, Gynecology and Obstetrics.*

Miscellaneous

A New Mercurial

We have long needed a satisfactory mercurial for hypodermic administration; and of all hypodermic methods, the intravenous is obviously the best. Arsphenamine is thus administered, but arsphenamine without mercury will usually fail to eliminate the spirochete of syphilis.

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Original Communications

Medicine and Surgery in Early Mediæval England*

By Sir Bertram Windle,
Professor of Anthropology, St. Michael's College,
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My connection with the active work of our profession terminated a good many years ago, and, when I was honored by an invitation to address this learned body, it seemed to me that the only topic to which I dared address myself was that of the early history of medicine in England, and I have now to ask you to listen to a few rambling remarks on that subject. The first medical record with which I am acquainted is to be found in the Ecclesiastical History of the Venerable Bede, the father of English history. It relates to the death of a remarkable woman named Ethelthryth—commonly Latinised Ethelreda, whose name afterwards became shortened into Awdrey, just as Magdalene became Maudlin. She was born somewhere about 673, and founded an abbey at Ely, then an island in the middle of the fens noted for its eels as its name indicates. This abbey, like some others of the time, was for men and women, who occupied separate houses on either side of the church, but were all under the rule of an abbot, or, as in this case, of an abbess. The system went out of vogue after the rule of St. Benedict was introduced into England. Ethelthryth developed a tumor beneath the inferior maxilla—probably tubercular, my friend Sir Norman Moore,† now President of the Royal College of Physicians, thinks—and Cynefride, a physician, was called in to operate on it. It is an interesting thing to find that even

*Read at the Stated Meeting of the Academy of Medicine, Toronto, March, 1922.

† I am much in debt to his erudite works for my facts.

at that time there were non-clerical practitioners, for he was one, since for many years almost the only educated people being clerics, most physicians were in Holy Orders. Cynefride opened the abscess and evacuated its contents. Relief followed, but we must suppose that the patient was generally affected, for not long afterwards she died and was buried. She was succeeded as Abbess by her sister Sexburg. Sixteen years after Ethelthryth's death, Sexburg desired to move her remains, and, as Bede tells us, "ordered some of the brothers to find a stone whereof to make a coffin for this purpose. They went on board ship, for the district of Ely is on every side encompassed with water and marshes and has no stones, and came to a small deserted city not far from thence which, in the language of the English, is called Grantacoaster (i. e., Grantchester, near Cambridge, a former Roman station), and presently, near the city walls, they found a marble coffin most beautifully wrought and fitly covered with a lid of the same stone (in fact a marble Roman sarcophagus). Perceiving, therefore, that the Lord had prospered their journey, they returned thanks to Him and carried it to the monastery." Then Bede tells us about the exhumation. Cynefride, not being a cleric, was outside the church, but he heard Sexburg call out *"Sit gloria nomini Domini,"* and was shortly after called in and saw the body of Ethelthryth perfectly incorrupt and, he said, with the wound which he had made, healed. What no doubt had happened was that the lips of the incision, after the pus had been evacuated, had come together. The body was re-buried in the marble sarcophagus and in 970 when King Edgar gave a charter to the Abbey, then Benedictine. That charter speaks of Ethelthryth "who, with body uncorrupted, lasts even to this day in a white marble mausoleum."

Such is the first medical history in the records of our island. There are other lay practitioners mentioned in charters for, when Henry II signs one resettling Holy Cross, near Winchester, amongst his co-signators were "Magister Hamon and Magister Ricardus, Medici." Holy Cross was a Hospital for poor, not for sick, and these two were probably his body physicians who were about to accompany him to the wars. Again to a charter to Abingdon Abbey given and signed by Henry I, *"Ego Henricus rex, redicionem, et donacionem hanc signavi"* there is also appended *"Ego Grimbaldus medicus interfui"* and he was clearly also a layman, not a cleric.

It is worth while considering what kind of knowledge these men can have had of the human body and its ailments. None

of them had ever dissected a human body, although perhaps some of them had opened one and removed the viscera (as was certainly done somewhat later as we shall see) for embalming purposes or for partial burial. Cynefride could not have even read any manual but the Liber Etymologiarum of St. Isidore of Seville, Doctor of the Church, an honourable affix which by no means indicates medical acquirements. Isidore who lived from 560 to 636, was of a time when it was possible for any one man to possess all the knowledge that there was in the world. I suspect that St. Thomas Aquinas in the 13th century was the last man of whom that could be said. Isidore at any rate in the book just mentioned—a huge rambling encyclopedia—gave to the world an account of everything that was then known or believed to be known, and amongst other things about medicine. It will interest you to know that he enumerates sixteen acute diseases, thirty-eight chronic, and twenty-one of the skin. Ethelthryth's ailment would then have been classed by her doctor amongst the Parotida *"duritie vel collectiones que ex febribus aut ex aliquo alio nascuntur in aurium vicinitate: unde et parotide sunt appellate."* The other and later physicians may have studied the treatises of the School of Salerno in Italy, the first important medical school in the world, founded at least as early as the ninth century, so celebrated that the city on its seals described itself as *"Civitas Hippocratica."* Its University was founded in 1150 and it is a tragic thing to record that it had sunk so low after centuries of great fame and importance that it had to be closed in 1817. From this school issued that famous work, the "Regimen Sanitatis Salerni" in which are to be found many aphorisms of sound common sense applicable to-day, for example:

"Si tibi deficiant Medici, Medici tibi fiant.
Has trias mens hilaris, requies, moderata dieta."

In the picture of Frater Johannes de Wallingford, Infirmarius at St. Alban's Abbey, that is its Resident Physician and Surgeon, you will find this early member of our profession seeking its aid, no doubt in connection with some case which was then worrying him. When the Regimen was published medical opinion was dominated by the theory of Humours and another aphorism runs:

"Gignit et humores melius vinum meliores."

The next clinical history which I will submit will, like one or two others, be that of a king, for of course such are the only ones which have survived. William the Conqueror, in 1087,

being then sixty years of age, lay ill at Rouen—a lethargic man instead of the active creature that had conquered and reorganized England. Always fat, *"immensae obesitatis"* says William of Malmesbury, he had now developed a monstrous *"obesitas ventris"* so that the King of France sent him a coarse message to ask if he was lying in. William showed that "even in his ashes was some fire y-wreken" for he swore that he would light ten thousand candles at the Mass post-partum; arose from his bed and took and burnt Mantes, at which place, as the older history books used to tell us, his horse reared and he incurred an injury from the pummel of his saddle from which he died The mistake is due to an error on the part of the historian named above. William lived six weeks after this. The same writer tells us *"Consulti medici urinae inspectione mortem citissimam praedixerunt."* What could they learn from their inspection of the urine? Of course they had no microscope and no chemical tests nor for centuries afterwards. Sir Thomas Browne, the author of "Religio Medici," I think it is who speaks of the "tedious labour of uroscopy," and in the well-known Dutch series of professional men, the doctor is represented looking earnestly through a large flask of urine. Sir Norman Moore thinks that they found William's urine deeply stained with bile and that probably he had a new growth of the intestine, perhaps the sigmoid flexure, with secondary growths in the liver involving the bile duct. At sunrise on September 9, 1087, William was awakened by the ringing of the Angelus at the Cathedral of Rouen, probably familiar to some here. He asked what it was, uttered a short prayer and expired.

John is the subject of the next clinical history, and it is recorded with considerable care by his physician who was no less a person than the Abbot of Crokestead, as Sir Norman Moore calls it, more usually known as Swineshead in Lincolnshire—*"In arte medicina eruditis,"* says the Chronicle. To this place John repaired after his disaster in the Wash. He had had a severe ducking and no doubt a bad chill, and ought to have gone to bed and been sweated and kept on a low diet. If the Abbot had had his way he would no doubt also have been bled as was the custom at that time. And such treatment might have led to a complete recovery. John was a bad patient and though the Abbot notes that on his arrival *"acutis correptus febribus"* he had a severe rigor, he insisted on eating a huge meal, after his custom (lampreys are said to have formed a substantial part of it), and drinking large quantities of new beer. Had his temperature been very high he would hardly

have embarked on such a gastronomic adventure but, if it was not at first, it obviously soon rose to an alarming extent. There were no clinical thermometers in those days, but the Abbot had a practised hand, and he tells us *"Febrilem in se calorem acuit fortiter et accendit."* Very wisely he again urged John to stay where he was, and no doubt go to bed, but again the patient was obstinate and insisted on setting out, and did set out to ride to his Castle at Newark, distant some miles. Whether on the way there or shortly after his arrival, his condition became so alarming that the Abbot asked him where he would wish to be buried. "To God and St. Wulstan I commend my soul and body" was his reply. Worcester was the place where the shrine of St. Wulstan, for whom John had a special devotion, was, and there John was buried. The Abbot made an autopsy not for motives of pathological curiosity, but *"ut honestius portaretur"* for it was several days' journey to Worcester, and what he removed, namely the viscera, he took to Swinestead and there separately buried. They had the curious habit in those days of burying bits of people in different places as we shall see shortly. You will see John's effigy on his coffin shortly. Now as to partial burials just alluded to. When Earl de Clare, one of the signatories of Magna Charta died, his widow had him buried in the chancel of Tewksbury Abbey. She afterwards married Richard, Earl of Cornwall, brother of Henry III. When she came to die, her second husband still being alive, she expressed a wish to be buried with her first. Her second demurred, and it was finally settled that her heart should be buried with de Clare and the rest of her body where her second husband was eventually to be buried, namely, at Beaulieu, in Hampshire, not far from Netley. The Earl of Cornwall's son went even further than this, for, after his death, and I suppose, in accordance with his directions, his heart was buried at Tonbridge, his intestines at Canterbury and Tewksbury was the residuary legatee. One sometimes sees in English churches a miniature tomb with a small figure of a knight on it or a pair of stone arms holding up a stone heart. These are what are called "Heart Shrines," and mark a partial burial of this kind. There is a miniature Bishop in full vestments on a small tomb in Salisbury Cathedral. This may be a heart shrine or it may be a tomb of a Boy Bishop. Such a person was elected every year on the feast of St. Nicholas (Santa Claus), the patron of children, which occurs on December 6, and held office until the feast of the Holy Innocents, December 28, during which time he and his canons appointed

by him amongst the choir boys, were dressed in the appropriate vestments of their elders, and it was directed that, if he died during his term of office, he should be buried with full episcopal ceremonies. It must probably always remain uncertain which kind of tomb this is. From this habit of partial burial arose another which has given rise to a curious misconception. In some ill-informed books the statement will be found that a Papal Bull was issued which forbad the practice of Human Dissection. No person at all acquainted with the history of Human Anatomy, but of course few are that, could credit that statement, for, at the very time that the regulation is said to have been in force, body physicians and surgeons of the Popes were living in Rome making dissections and publishing the accounts of their discoveries and usually dedicating their works to the Pontiff himself. It was a great time for an anatomist when he could immortalise himself by no more out-of-the-way discovery than that of the Fallopian tube which owes its name to Gabriel Fallopius, a canon and Professor of Anatomy at Padua and Pisa, who first described it. The majority of names attached to anatomical structures belong to Italians or persons teaching in Italy, like Stenson. The facts are these:—When nobles went to the Crusades they often agreed with their friends and fellow combatants that if they lost their lives their bodies should be brought back to Europe for burial. One can imagine what difficulties this gave rise to. Several large dead—perhaps some time dead—Crusaders would make a very inconvenient addition to a small ship, loaded with persons coming back from Palestine and I expect that embalming methods were not very efficacious. The survivors conceived the plan of boiling down their dead friends and taking their bones home for burial. The Pope, rightly or wrongly, thought that this was an improper proceeding and forbad it under pain of excommunication as is very clearly indicated in the Bull which he issued. Such is the explanation, but the dismemberment for separate burials does not seem to have been forbidden.

I am reminded by John's case of another very interesting clinical account of a royal patient. It is not Mediaeval and so I will not linger over it further than to say that the physicians who reported on the condition of James I. sums up his habits in connection with liquor in the most comprehensive statement that one can well imagine: "*In potu peccat quoad qualitatem, quantitatem, frequentiam, tempus, ordinem.*" To come to an end of early doctors I must not omit to speak of that

very remarkable woman Saint Hildegarde, born in Germany, 1098, Abbess of Rupertsberg, near Bingen on the Rhine, who was one of the greatest among the great abbesses of the Middle Ages, and dealt as an equal with Popes and Potentates of various kinds. Amongst other things she wrote several very remarkable medical works, besides a Natural History and other books, all of them displaying vast knowledge so far as the period provided it. Lastly I may remind you that in the list of Fellows of the Royal College of Physicians the first two names are those of priests. The first, on account of his seniority, is Chambre, the second, far more distinguished and the first President, is that luminary of our profession, Thomas Linacre, the real founder of the College, the bosom friend of Sir Thomas More and of Erasmus, who, in a letter from the Continent, writes a grievous account of his illness, acute tonsillitis, I think, from his description, and adds, "I have no Linacre here to cure me."

To turn to medical practice for a moment: The Breviarium Bartholomei is a practice of medicine compiled, early in the thirteenth century, by that remarkable man, John Mirfield, a divine, indeed a Dominican, who was connected with the hospital after which he named his book. It has been carefully described by Sir Norman Moore. Mirfield often quotes from the practice which he saw under his master, whose name is not given. Amongst other things he describes the case of a woman who had lost her speech,—probably hysterical aphonia, from the rapid cure. The master rubbed her palate with a preparation known as theodoricon emperisticon mixed with a little diacastorium. The woman recovered and was much pleased with the skill shown by her physician. In another case of carbuncle where death was apparently imminent, the master thought that nothing but a large dose of Theriacum could cure and *post hoc* or *propter hoc* after a dose of two drachms the patient did in fact recover. This preparation was also known as Mithridatum, and certainly in all its vicissitudes contained opium. It began with thirty-eight ingredients, rose to fifty-three and finally contained seventy-five. It says volumes for the conservatism of the profession that if we date Mirfield's master at 1215 or so the drug had a run of more than 500 years, for, in 1745, Heberden (of Heberden's Ink, a preparation of iron used when I was a student) thought it worth while to write an essay called Antitheriaca, the object of which was to decry the use of this drug which by that time contained or was supposed to contain

ingredients the very nature of which no living person was acquainted with. We must not forget that these shot-gun prescriptions did not die an easy death or a very far-off one. The Chelsea Pensioner which had, if I remember aright, some 28 ingredients, was still quoted in the books, as an example of how not to do it, but of how it had actually been done in recent times, also during my own studies in the arid regions of Pharmacy as they were forty years ago. The division of the Breviarium is interesting as showing the subjects insisted upon. The parts were:—Of fevers; of affections of the whole body; of affections of the head, neck and throat; of the chest; of the abdomen; of the pelvic organs; of the legs; of boils (it is curious that an entire section should be devoted to this subject); of fractures and dislocations; of joints; of simple medicine; of compound medicines; of purgatives; of the regimen of health. Chronic rheumatism Mirfield treated by inunctions of warm olive oil, which was to simmer while one said certain prayers and the verses of the psalm *"Quare fremuerun gentes"* as far as that one which reads *"Postula a me et dabo tibi gentem hereditatem tuem."* These were all to be repeated seven times. This is neither superstition nor even ultra-piety, but a method convenient for the day of one-handed clocks (and they in the tower), of measuring out exactly fifteen minutes. Of goose grease says Mirfield:

Istud pinguamen.
Dat gutte cuique levamen.
Anseris unuentum.
Valet hoc super omne talentum.

In other words, the strange concoction which contains a great many other things, including the flesh of a recently skinned cat, is sovereign remedy for gout. Times pass, and fashions change, but no one finds anything suitable for that disease but the product of Colchicum autumnale which grows and flowers I feel sure for that purpose alone. I have often looked at its pretty autumn flowers and admired a thing which is both beautiful and useful.

Before leaving Mirfield it is curious that even in his day, that is the early thirteenth century, we should meet the complaint that medicine and surgery have become separate lines of practice. "He cannot be a good physician who neglects every part of surgery and on the other hand a surgeon is good for nothing who is without knowledge of medicine. So says Mirfield and also says, to exhibit his surgical knowledge, that while a rib will take 20 days to unite, a humerus or a femur

will take forty, and that union takes longer in the old than in the young. In spite of his Theriacum and goose-grease there was a good deal of shrewd observation in the book.

Before passing to the topic of general hospitals I think I may usefully devote a few moments to saying something about the infirmaries attached to Abbeys, for they were amongst the earliest places for isolation of the sick, and as we are perfectly familiar with the rules of the Benedictine Foundations we know just what they did. There was always a separate infirmary; shortly I will show you plans of two and perhaps someone will explain what has always puzzled me, namely, why that at Fountains should have been built over a running stream. The Infirmary had its own Chapel and near it usually was the Misericorde of which more in a moment. The Infirmarian, who was one of the monks, was the resident medical attendant and his duties are fully set forth. When a sick monk was sent to him he was to have that monk's bed fetched from the common "Dorter" or sleeping place from which it would appear there was no distinct hospital bedding, for it is bedding which is alluded to. He is told how he is to serve the sick: "He must be gentle and good-tempered, kind, compassionate for the sick, and willing as far as possible to gratify their needs with affectionate sympathy." Some of the monks might not need to be placed in the Infirmary, yet required treatment and the Infirmarian would direct them according to the Rule —a model of common sense—to see that such were excused their tasks or much of them, and allowed gentle exercise in the open air when the weather permitted. Amongst other things the Infirmarian was the general venesector and the Rule has full directions for this important business. Everybody, where there was no contra-indication, was bled four times a year, if possible February, April, September, and October. In an Abbey the occupants were dealt with in batches of from two to six, the Abbot announcing at dinner on some day that those who sat at such and such a table were to be blooded that week. There was only one room in any Abbey where there was a fire (apart of course from the Abbot's house and the Guest house), and that was the Calefactory and there the monks went to be blooded. Before the operation they might eat if they chose. After it they went to the Misericorde where they were treated to somewhat better food than was ordinarily partaken of in the "Frater" or common refectory and further were allowed great relaxation of the Rule for the time being, that is they could lie down, sleep, and so on, as they felt inclined, and

either go into the Church for services or not as they might judge best for their enfeebled condition.

To show the extreme minuteness with which the Benedictine Rule treats of this important occurrence it is stated that "if he (the recently operated on) liked to go to Hours (that is the daily office) in choir (i.e., in the church) he was to sit; (of course everybody else stood or rather rested against a Miserere); he was never to bend down or do penance of any kind, for fear of displacing the bandages, and he was to go out of church before the others, for fear of having his arm rubbed if he were to walk in the ranks."

Such were the Monastic conditions with regard to venesection and we may feel sure that other people—for of course everybody was "let blood" regularly then and for many years afterwards—were treated more or less on the same lines.

From these monastic institutions I may now turn to those of a general character and briefly consider the history of one or two before showing you some slides illustrative of the things of which I have been speaking.

There were various kinds of hospitals (apart from such as were almshouses) ordinary and leper. When we meet with such a name for a village for example as, "Spittal in the Street" we have to do with the site of a Mediaeval Hospital situated on a Roman road or Strata. And in the name of such a place as Burton Lazars we have the remembrance of a leper hospital. Leprosy, as we all know, was the scourge of Europe in the Middle Ages. Was what was then called leprosy, what we know by that name? Many have thought not, but the fact is that the descriptions do tally with the modern disease and the picture at Munich of St. Elizabeth of Hungary, tending lepers, does represent persons suffering from what we call leprosy; indeed Virchow said that Holbein must have made studies in a leper hospital so accurate is his picture. In the 15th century it began to die out, retreating, so it would seem, before the plague of syphilis, then first heard of. I fancy that severe cases of lupus and other like ailments got mixed up with true leprosy and the authorities seem to believe that the leprosy "as white as snow" spoken of in the Bible was really leucoderma. However leprosy—the genuine article—was so prevalent that at one time there were 19,000 leper hospitals in Europe and of these 95 were in Great Britain and 14 in Ireland. These and other hospitals must have been for the most part small for we are told that there were four ordinary and five leper hospitals in Norwich and five leper hospitals in King's

Lynn. Both of these places had much contact with the Low Countries, and were thus subject to the contagion, but neither of them were what could be described as populous, There was an order of Knights of St. Lazarus, an offshoot from the old Order of the Knights Hospitallers of St. John, which, by the way, still exists on the Continent as an Order of Chivalry, but has nothing to do with the modern Order of St. John of Jerusalem in London, though the similarity of name, which I think very unfortunate, would suggest such nexus. This order of St. Lazarus consisted of one hundred Knights who alone of all the Military Orders were permitted to marry, and its purpose was to nurse lepers in the Holy Land. Up to 1253 it was a rule that their Grand Master must himself be a leper of noble rank, which shows that the disease extended to all ranks of the people. At the time mentioned it was found impossible to discover an eligible candidate and the reigning Pope, Innocent III, abrogated the rule. As to the ordinary hospitals for sick people there were a multitude of these and from amongst them I will speak of two, both known I am sure to many here. Thomas à Beckett, better known as St. Thomas of Canterbury, was martyred in 1170 and canonized two years afterwards, and the place where his remains were laid soon became a place of pilgrimage. The persons making that journey would naturally collect in or about Southwark on the Old Kent Road for their ride or walk to Canterbury. We know of one famous company which collected at the Tabard Inn where Harry Bailey then was landlord, for their exploits form the theme of the Canterbury Tales. But the really pious pilgrim would perhaps rather avoid an inn and the impecunious one would be glad of a gratuitous lodging and so, in 1213, the Benedictine Abbey at Bermondsey set up a branch house in Southwark which they named after St. Thomas of Canterbury, which house was to be a temporary lodging place for those setting out next day on their pilgrimage and such it remained for many years. But in 1379 it is clear that it had become something more than that for there is extant the will of one Gilbert Chaumpneys who left, among other bequests, three beds with linen for each and sixpence apiece (a not inconsiderable sum then) for the "infirmi." That word tells the story, for in all cases of almshouses "pauperes" is the word employed. Henry VIII under plea of superstition, seized upon this hospital because, like every other kind of thing at that time, whether hospital, guild merchant or other kind of guild, it had a religious side, and absorbed its funds. It was

the common lot of schools, hospitals and guilds at that time. The inhabitants who, no doubt, had found the hospital useful and missed it, prevailed upon Henry to sell back to them their own property, and he, I suppose, by way of showing that he was not entirely destitute of generous impulses, let them have it back for a substantial sum of money. At the same time he insisted that the name should be changed from that of St. Thomas of Canterbury to that of St. Thomas the Apostle. Henry had a great idea of Kings, and did not like to encourage those who crossed their path as Thomas à Beckett had done in his time and he insisted on every place in England which bore his name, changing it. This little history always makes me think of Mr. William Sykes whom one may imagine returning one's watch for cash down, but with the stipulation that in future his name should be inscribed on it as donor. Henry did not go so far as that, but his successor, Edward's, name is attached to many places, the history of which was that of St. Thomas' Hospital. That ancient and famous institution was rebuilt in 1870, and, as everybody knows, stands in Lambeth on the opposite side of the Thames to the Houses of Parliament.

St. Bartholomews, which may perhaps dispute with the Hotel Dieu in Paris the right to be considered the most distinguished hospital in the world, has quite a different history. At the court of Henry I, in 1120, just before the catastrophe of the White Ship, in which his son William was drowned, there was what Hamlet would call a "water-fly" named Raherus. Sometimes he has been described as the King's Jester, but really he was an amusing character, of rather humble origin who got into court circles and remained there on account of his pleasant social attributes. After that catastrophe, after which, as our history books used to tell us, the King "never smiled again," jesters and "water-flies" were no doubt at a considerable discount and besides that there is no doubt that Raherus was very deeply affected by what happened and did seriously repent himself of his career which it seems contained incidents which caused him much regret. And, in accordance with the ideas of the day, he made a pilgrimage to Rome in penance for his sins. While he was there he was taken seriously ill and his death was expected. He made a vow that, if he was saved, he would build a hospital in London and when he had made a complete recovery he started for England, to carry out his promise. On the way he had a vision, which very much terrified him, that he had fallen into a deep pit, and could not get out, and that eventu-

ally he was extricated by a dignified personage who told him that he was St. Bartholomew and that when he got to London he was to build a church in his honour at Smoothfield and name that church and his hospital after him. Raherus, whatever one may think of this vision, was so much impressed by it that when he returned to London he got from the king a grant of land at Smoothfield—now called Smithfield—and there he built a church and house for Augustinian canons and close by it a hospital and to both of them he gave the name of St. Bartholomew as he had promised to do in his vision. Those who know Smithfield now will find it hard to imagine what it was like then. It stood outside the walls of London in the open country close to Newgate, and even then was a near neighbor to St. Sepulchre's Church, at which years afterwards the bell tolled every Monday morning for the weekly batch of criminals, executed at a time when there were so many counts involving those found guilty of the death penalty. On the other side were some ploughed fields and beyond them a dense forest in which deer, wild boars and the great wild cattle, of which a few herds still survive under careful nurture, roamed about. Into the history of St. Bartholomew's Hospital I cannot go, but the question must at least be answered:—How did it survive Henry VIII? The Augustinian Priory, of which Rahere, who became a priest and a monk, was the first Prior—his tomb you will see in a few minutes—was suppressed and all its funds confiscated. For years, in fact, up to quite a recent date, parts of the church were used as a dwelling-house and a fringe factory. The Hospital won through, perhaps, because Rahere by a lucky inspiration had made it quite independent of the Priory and it may not, therefore, have come under the notice of the King. I suppose the reason why his image appears above the Hospital gate which was erected in the time of Queen Anne and is, I am sure, known to many here, is that he let the place alone. It was almost an unique incident in his career.

The Clinical Manifestations of Arteriosclerosis*

H. B. Anderson, M.D., Toronto.

It is obviously impossible to discuss fully the clinical manifestations of arteriosclerosis within the time limit fixed this evening, so that I shall only attempt to touch briefly upon a few outstanding features.

So much investigation has taken place and so much has been written on the subject since the publication of Gull and Sutton's epoch-making observations on arteriocapillary fibrosis in 1872, especially the studies of arterial hypertension by means of the sphygmomanometer during the past two decades, that in some respects the whole question has been confused rather than clarified in the mind of the practitioner. For practical purposes, as the tendency now is with the disease in general, arteriosclerosis is more profitably considered from the standpoint of etiology and functional impairment of organs rather than from that of morbid anatomy.

The morbid-anatomical classification of Councilman into (1) *diffuse*: (2) *nodular*: (3) *senile,* arteriosclerosis cannot be rigidly applied clinically, as these three types merge more or less into one another

In its commonest form arteriosclerosis is a chronic progressive disease, partly degenerative and partly proliferative, involving especially the intima, and to a lesser degree, the media and adventitia of the arteries: in the diffuse variety with accompanying fibrosis of the capillaries and connective tissue of various organs, especially of the kidneys and even the venous system (phlebosclerosis.)

What Allbutt describes as *decrescent, senile* or *involuntary* arteriosclerosis, is merely an expression of pre-senile or senile involuntary changes, analogous to the grey hair and wrinkled skin of advancing years and it is only when, from hereditary defect or excessive wear and tear, these changes occur at an earlier age than normal, that they properly come within the limits of actual disease. This *decrescent* or senile type is commonly unaccompanied by high blood pressure and cardiac hypertrophy and is compatible with life to an extreme old age.

The second clinical variety of arteriosclerosis is considered by Allbutt and others to result from prolonged high blood

*Contribution to the discussion on Arteriosclerosis, Medical Section of the Academy of Medicine, Toronto, March 14, 1922.

pressure (hyperpiesis) though many believe that the toxic agent producing the hypertension may also act deleteriously on the vessels themselves, inducing sclerosis. The underlying cause of this primary high blood pressure (hyperpiesis) whether toxic, metabolic or due to disturbed endocrine functions (adrenals and thyroid) is not definitely known.

The third clinical form of arteriosclerosis is that in which syphilis, typhoid fever; rheumatic, focal and other infections; chronic nephritis, diabetes, gout, intestinal toxæmias; physical, nervous and emotional overstrain and worry, overeating, etc., are important underlying causes. This variety may or may not, be accompanied by increase of blood pressure though it usually is when associated with chronic interstitial nephritis. The role of tea, coffee, tobacco and alcohol is more questionable. The combination of strain and excessive quantities of beer is shown in the cardio-vascular sclerosis of the tremendously hypertrophied "Munich beer heart."

Generally speaking, the diffuse form of arteriosclerosis, notably when involving the smaller vessels, especially those of the splanchnic area, produces high blood pressure, whereas the nodular type involving the large vessels does not.

Physical examination may detect undue prominence or thickening of accessible peripheral vessels such as the radial or temporals, but it is important to remember that there is no necessary relationship between the degree of involvement of the peripheral vessels and those of the brain, heart and other internal organs. With the latter a consideration of causative factors and symptoms of impairment of the functional activity of the organs, furnish far more valuable information in leading one to a correct appreciation of the patient's condition.

Usually arteriosclerosis does not develop before the fourth decade, though early life, even infancy, is not exempt from the disease. Some years ago a medical student in the twenties was taken suddenly ill after a dance and entered St. Michael's hospital in a comatose condition. He died and autopsy revealed an extensive arteriosclerosis, marked cardiac hypertrophy and a large cerebral haemorrhage.

Apart from heredity, males are more exposed to the conditions producing arteriosclerosis than females until the menopause, at which time disturbed endocrine function accounts for an increased incidence among women. The occurrence of arterial hypertension with the psychoneurotic manifestations of the change of life is well known.

Anatomically the area of sclerosis may be very limited, its importance being entirely dependent upon whether the location interferes with the function of an important organ or not. This was well illustrated by a case of sudden death in a woman, twenty-five years of age, reported to the Toronto Pathological Society by the late Dr. W. J. Greig. She had complained of no previous illness, but feeling indisposed after returning from Sunday School, lay down on the bed and shortly afterwards was found dead. Autopsy revealed a single atheromatous plaque involving the orifice of the left coronary artery, occluding it so that it would scarcely admit a bristle. The immediate cause of death in some of these cases is *arterial* thrombosis occurring in the sluggish stream of the partly occluded artery.

In aortic sclerosis the patient may complain of a burning sensation behind the sternum or anginal symptoms and physical examination, including X-ray, shows evidence of aortic dilatation. A ringing quality to the aortic second sound is common and possibly signs of aortic insufficiency, though the latter is rare except in the syphilitic form of the disease. The weakened arch may give way and an aneurism result. Some years ago I was called hurriedly to see a patient on Beverley St. who was taken suddenly ill with severe retro-sternal pain as he was in the act of removing his overcoat. He died before my arrival and autopsy showed a rupture at the base of an atheromatous ulcer in an extensively involved aortic arch, resulting in a dissecting aneurism which separated the intima from the media as far as the bifurcation of the abdominal aorta. This specimen is preserved in the Pathological Museum of the University.

In cerebral arteriosclerosis the symptoms vary according to the location and are in proportion to the degree of interference with the vascular supply of the brain or one of its areas. There may be progressive deterioration of the cerebral function as in certain cases of senility or the dotage of old people; there may be complaint of headaches, dizziness, numbness of the extremities at times, general nervousness, irritability, wandering, temporary aphasias or other palsies, etc. One should hesitate in the diagnosis of neurasthenia developing after the fifth decade. These palsies may be transient. Some years ago I was called to see a man of eighty in deep coma and with a hemiplegia of sudden onset. An early death was prognosticated but he was down town within a few days and lived for some years. Cerebral hæmorrhage, of course, may occur especially in the physically

vigorous, the lenticulo-striate artery being the commonest seat: and arterial thrombosis with resulting areas of softening is common in the more advanced or senile cases, the precise symptoms depending on the particular vessels involved. If the thrombosis is in the vessels of the so-called silent areas of the brain the symptoms are of a general character, such as restlessness, dizziness, delirium, mental confusion, coma, etc., and while temporary improvement may follow readjustment of the circulation, relapse is certain and the course of the disease, measured over periods of three to six months, is progressively downwards. These cases in their early stages are often difficult to diagnose but are important, especially from the medico-legal point of view, as to testamentary capacity.

In sclerosis of the coronary arteries the symptoms may be those of angina pectoris, Stokes-Adams' disease or heart block, auricular fibrillation or flutter, or other form of cardiac arrythmia; or they may be merely those of myocardial insufficiency, due to chronic myocarditis or myomardial degeneration secondary to impaired nutrition. The degree of weakening of the ventricle which may occur is illustrated by a case seen some years ago in which a degenerated area in the left ventricle ruptured during the passage of a stomach pump.

Sclerosis of the mesenteric vessels is interesting and important pathologically but clinically it is indefinite and difficult of certain diagnosis. Attacks of violent colic with distention, perhaps vomiting or abdominal pain, in the absence of other causes may be thus explained at times. Sclerosis of the vessels of the pancreas obviously may produce diabetes, though the diagnosis as to cause is made on pathological rather than on clinical grounds.

Arteriosclerosis involving the kidneys, of course, is common and one need not delay to discuss the clinical manifestations, which are those of chronic interstitial nephritis or granular kidney, arterial hypertension, cardiac hypertension, perhaps albumenuric rentinitis. Ophthalmoscopic examination may be of special value in recognizing the silver-wire arteries, retinal hæmorrhages, etc.

Sclerosis of the vessels of the lower extremities may present as its first clinical manifestation pain in the calves, weakness of the limbs, or lameness in walking—the intermittent claudication of Charcot. The symptoms disappear at rest. The limb may be pale, cooler than normal and the pulse absent in the dorsalis pedis. When more advanced, gangrene, of course, may develop.

Arteriosclerosis of the lower extremities has been found also as the underlying cause of erythromelalgia, a condition of the feet described by Dr. Weir Mitchell, in which there is intense redness, burning, neuralgic pain, swelling, etc.

Somewhat allied to the above diseases, in symptomatology, is the obscure condition known as Buerger's disease, occurring almost exclusively in Hebrews. Anatomically the condition has been designated *thromboangiitis obliterans,* from the fact that thrombosis in the affected vessels leading to their obliteration is a prominent feature of the disease, though more or less vasular sclerosis is usually present. I have seen three or four of these cases in Toronto. In two of them no pulsation whatever could be felt below the femoral arteries and in them it was felt with difficulty. The disease is progressive, practically uninfluenced by treatment and eventually leads to gangrene and death.

A very interesting and unusual case of this type was referred to me some two years ago, by Dr. Casselman, of Sault Ste. Marie. The patient was a French-Canadian woman, married, age twenty-five years, with symptoms of dry gangrene developing in the right foot. She had suffered from no previous serious illnesses or infection, except influenza a year before and a miscarriage shortly before the onset of the symptoms of gangrene, though the leg had been frost-bitten the previous winter. WaR. reaction of the blood and spinal fluid were repeatedly negative. She had, however, one of the most septic mouths I have ever seen, with crowns, bridges and pivot teeth in profusion. Dr. Wallace Scott amputated the thigh at the upper third, and though some sloughing of the flaps occurred the wound eventually healed and she returned home. Sections of the femoral, popliteal, anterior tibial and peroneal arteries at various levels showed an obliterating endarteritis with canalization of the thrombus, no periarteritis and only an occasional plaque in an otherwise apparently normal medial coat. Some nine months later the other limb became affected: gangrene developed, she refused operation and died in a short time.

I have referred to this interesting case, not that it comes under the condition ordinarily described as arteriosclerosis, as thrombosis in the arteries is a more prominent feature than the changes in the walls of the vessels, but because it produces a somewhat similar group of symptoms and a study of cases of this kind may contribute to the solution of the problem of arterial disease in general.

The Successful Treatment of a Case of Variolous Inflammation of the Cornea

By G. Herbert Burnham, M.D., Tor., F.R.C.S., Ed. etc.

In June, 1919,[1] a young man, aged 33 years, consulted me regarding his right eye, which had become inflamed during an attack of smallpox two months before. Left eye was unaffected. There was a large dense infiltration of the cornea, occupying the outer half, and so much of the inner that I could just see enough of the iris at the extreme inner edge of the cornea, to make out that the pupil was apparently fully dilated in this direction with the atropine, which had been used prior to seeing me. The vision was p.l.g. only, except in one part of the field where large objects could just be made out.

There was, though the infiltration was apparently free from any active inflammation, an irritable state and photophobia, which I could not satisfactorily account for.

I decided to use "The Combined[2] Treatment" without delay. The first series is always twenty hypodermic injections of pilocarpine, given daily so as to get the system under the full influence. The subsequent series are each ten injections in number and these series are given at intervals of five, six, or seven weeks, so as to keep up the full effect of the drug. If the case is very urgent, the interval is four weeks, and sometimes the first series is thirty in number.

During the series of injections I give internally twice daily, mercury and the iodide of soda, if the patient can bear them, as sometimes they are not borne; but between the series the medicine is always given thrice daily. The strength of the injection used in this case varied from gr, 1/8 to gr. 1/3. The first dose may even be gr. 1/12 so as to feel the general system as to any peculiarities it may have. If any dose seems to cause too much reaction, a smaller one may then be given.

This so-called excessive reaction seems to be due to the inability of one or more of the organs of the body, for example, the liver, to bear the sudden call upon it to decidedly increased functional activity, and hence vomiting and sometimes distress. A little later in the same series, a larger dose gives rise to no such symptoms. This remark applies to the other organs, the heart included. A sharp pain or cramps

(1) Referred to me by Dr. MacKay, Oshawa, Ontario.

(2) The "Combined Treatment" of Diseases of the Eye—H. K. Lewis, G. Herbert Burnham, 136 Gower Street, London, 1906.

of short duration, and even slight shivering, may occur, and are entirely due to the heightened functional activity, and are non-inflammatory, and are harmless.

The use of the treatment is often accompanied with no disturbance, whatsoever. The maximum effect must be kept up and can easily be done without any danger or even much inconvenience, if one is accustomed to the administration of the drug. The muriate of pilocarpine is more effective and is now used by me to the exclusion of the nitrate. In this case I had given as much as gr. 1/3, but not often, as the action through the nervous system showed that it was advisable not to do so.

He returned again in August, to receive a series of ten injections. I now examined the eye carefully, as I always do before beginning a series. There was a decided clearing of the infiltration. I could now, as it were, look into the infiltration, and I saw there three minute fuzzy white spots, evidently the centre of a certain active condition, and hence the cause of the irritation, mentioned in the beginning.

My patient again appeared in October, just prior to another series of ten injections. A marked improvement had occurred. The vision was 6/18.

At the end of November, when he again came up for another series of ten injections, I examined him and found the conditions as follows:—without mydriatic the vision was Right eye, plus 1.00 cyl. at 40° 6/9; Left eye, plus 1.00 cyl. at 50° 6/6 easily. With a mydriatic vision was R. O. 25 sp., 1.00 cyl. at 40° 6/6 slowly, L. O. 25 sp., 1.00 cyl. at 50° 6/6. Glasses were ordered.

In January, 1920, he again came to see me, that is about seven weeks after the last series, with undilated pupil the vision was with glasses R. eye 6/9.

As the eye looked so well and the slight corneal haze, still present, was not visible to an ordinary onlooker, he decided to cease the treatment. I remarked, that if another series of ten injections were given, the haze would disappear, and the vision be as good as that of the other eye, that is normal. His general health was excellent, and he had gained ten pounds in weight.

January, 1921—This is the first visit since January, 1920. There is still a slight haze of the cornea, and the eye is quite quiet. The vision is: R. eye, 1.50 cyl. at 60° 6/9, and 6/6 a few letters of: L. eye, vision as before.

I now reminded him of my former opinion and said, had he but taken it, that the vision would have been normal. I have brought this case to your notice as corneal inflammation, due to smallpox is now-a-days so rarely seen.

Speaking in a general way in regard to corneal ulceration and corneal inflammation of a severe type, which type alone tests the respective merits and the superiority of any form of treatment, I can affirm, without hesitation, that the Combined Treatment has been in my hands, very successful, and is to be relied upon. It not only heals, but also clears the corneal tissue involved, so that good vision is given. Its action even when causing the greatest effect, being always physiological, and therefore being unattended with any ill effects, either in regard to the eye or the system generally, that is, doing away with the fear of any injurious action upon the eye during its use, is a statement, a contention, which my long experience has markedly verified.

Therefore, that my patients also show in addition to the great improvement of the local disease—very many times a cure—a greatly bettered general condition, as so often evidenced by that sure sign, viz., a clearer and healthier look to the skin or as a lay-person would express it, a better complexion—is a consistent, a natural result.

The super-activity of the nerve centres of the whole nervous system, but especially of those to do with the diseased tissues, produced by the use of the Combined Treatment, has always been the hypothesis upon which I have reasoned and worked. This hyper-activity causes such a sustained and decided increase of the physiological circulation of the affected tissues, that the germs of the disease are overwhelmed and destroyed, and thus there are brought about a decidedly improved condition and often an apparently normal state.

This is to me the manner of action of the so-called "Spontaneous" cure.

The term physiological circulation is one, which includes all the means used in the economy of the body to nourish any normal tissue. The Combined Treatment, as well as having the power of exciting this hyper-activity of the physiological circulation, has also this naturally associated effect, in that it seems never to cause any other than an activity, which gives rise to no abnormal state of the tissues. In other words this superactivity is always a heightened normal con-

dition, tending towards, what may be termed, almost perfect health.

At times, while the eye-affection is being treated by this remedy, that this latter has also most beneficially acted upon a long standing and obstinate skin-disease, as eczema, is a legitimate outcome and a support of my hypothesis with respect to the "Combined Treatment."
Toronto, Canada.

Treatment of Hæmopotysis due to Tuberculosis

Bertier (*Journ. de Med. et de Chir. prat.*) in a lengthy article devoted to this subject, sums up his findings as follows: (1) In afebrile cases with small hæmorrhages exercise should be stopped, rest enjoined, the cough alleviated, and calcium chloride and horse serum administered orally. (2) If the hæmorrhage be moderate in amount and the cases subfebrile, 5 to 10 mg. of morphine subcutaneously, with complete immobilization in bed, ipecacuanha in nauseous or emetic doses, calcium chloride, emetine, and pituitary extract. If the hæmorrhage persist, gelatin. (3) When the hæmorrhage is abundant, nitrite of amyl, morphine, gelatin, and bandages to the four limbs. If the fever be high, cold to the chest; pituitary extract. (4) In overwhelming cases ligature of the four limbs, nitrite of amyl, gelatin and artificial pneumothorax. (5) In fibroid cases with high tension, nitrite of amyl, ipecacuanha sufficient to produce vomiting, emetine, extract of mistletoe. (6) In cases with asystole and congestion of the bases, oil of camphor, cardiac tonics, purgatives, and restriction of liquids.—*British Medical Journal*

The Achievements of the Academy of Medicine

By John Ferguson, M.A., M.D.

I have been requested, as Chairman of the Library Committee, to make a few remarks on the achievements of the Academy of Medicine, and more especially with regard to that of the library department of the activities of the Fellows. I shall endeavor to be brief that I may not trespass upon the time which we all wish to accord to Sir Bertram Windle; but, my feeble effort shall add, by contrast, to the pleasure which you shall enjoy in listening to his scholarly thoughts and eloquent words.

The activities of the Fellows of the Academy are directed along four main lines—the social, the scientific, the securing of a home, and the library. Incidentally, I shall have occasion to touch upon all these aspects of our work, namely, our Academy home, our membership, our meetings, our associations with each other, our journals, our books and our pictures. It will thus be seen that we have a material, a social, a scientific, a literary, and an artistic side to our many activities.

First, let me say a few words about our Academy home. We have one of the most beautiful spots in the City of Toronto. It has been made sacred to the cause of medicine by the fact that it was in passing this corner in conversation with the late Dr. Arthur Jukes Johnson, that the young William Osler decided definitely to study medicine, a decision that has brought glory to Toronto, to the medical profession, and made for him a name "not for his own but for all time."

Our Academy home has become one of which the Fellows may feel justly proud. On the 31st of March, 1921, our interest in the leasehold rights was placed at $6,845.87; the improvements and furnishings on the same date were estimated at $8,597.78, and, during last summer, additional building accommodation was added at a cost of $19,890.00; or, a grand total of $35,333.65.

The Fellows have now a building that furnishes an auditorium for 200 persons, a large and well-lighted reading-room, a smaller auditorium for the meetings of sections, an excellent room for council meetings, rooms for committee meetings, for the officials, a stack house for our books, and much other shelving space throughout the building.

As the years roll by and the experiences of the Fellows, in their association with each other, grow more numerous, appreciative, and deeper, it will be the feeling of all to exclaim with Horace—

Ille terrarum mihi praeter omnes
Angulus ridet—

That corner of the earth smiles more sweetly for me than all others; or, put in poetic form—

No spot so joyous smiles to me
Of this wide globe's extended shores.

A word on our membership is now in order. When the academy was founded in 1907, by the union of the Toronto Medical Society, the Clinical Society, the Pathological Society, and the Ontario Medical Library Association, there were 184 Fellows. To-day there are 595 resident Fellows, 56 non-resident, 5 life, 6 honorary, 6 associate, and 1 corresponding, making a total of 669 Fellows. This is growth well calculated to touch the imagination of the least susceptible. It has ever been the effort here to make good the words of Catherine Philips—

"Friends are each other's mirrors, and should be
Clearer than crystal, or the mountain-springs,
And free from clouds, design, or flattery,"

The various funds of the academy are now beginning to loom above the horizon. In the general fund, there is now over $10,000, bearing interest. The library has now the Bovell, the Osler, the Wishart, the Workman, the Ferguson, the Anderson, the Reeve and the Alan Brown Funds, amounting in all to about $1,600.00. The interest on these various funds is used for the purchase of books of certain kinds. Here is a golden opportunity for some of our rich Fellows. As the late Sir William Osler once said in a letter to the Academy, "Each surgeon should consecrate a good fee for the endowment of the library." Do I hear any say, "We are ready?"

The meetings, both general and of the various sections, are continuously becoming more interesting and useful. The scientific work done in these meetings is a credit to the Fellows, and is on a par with what is accomplished in other organizations of the same kind. It can be said that the Academy has become a power in the medical profession, and a real educator. It has a valuable influence by inducing Fellows to give careful thought to the preparation of their papers and ad-

dresses, both as to matter and form. The Fellows are imbued with the truth of the words of Pope that, "The proper study of mankind is man." The relief of man's sufferings holds the centre of the stage.

On the walls of our Academy home are to be found many pictures on medical subjects and the portraits of the masters of medicine. There are eleven splendid oil paintings and 150 others of a total value exceeding $5,000. I have pleasure in presenting three more, a Hunter, a Heaviside, and the Country Surgeon. These lend an artistic touch to the rooms, and have an inspiring influence upon those who view them. Here is the calm and philosophic face of Lister, yonder is the studious Jenner; adorning another portion of the wall, is the noble Harvey; in a place all his own, is the strong but kindly Sydenham, and so from room to room one may drink deeply from the lessons these emblems of the great and good teach. In the words of the late Col. John McRae:—

Amid earth's vagrant noises, they caught the note sublime:
To-day around them sùrges from the silences of time
A flood of nobler music, like a river deep and broad,
Fit song for heroes gathered in the banquet hall of God.

We owe them more than we can ever repay, but we are glad to remain their lasting debtors.

Turning to the library phase of our efforts, let me first direct attention to the journals on file. In 1907, these were but few; but to-day, after fifteen years of arduous efforts, the current journals now available for the Fellows have risen to the imposing number of 200. These bring within the reach of all, the best that is to be found in the medical literature and science of the world. No one need go hungry or thirsty with such an abundant supply of food and drink within his reach—food that satisfies, and drink that does not inebriate. Perusing these journal files, each Fellow can say with the old Latin writer—*"Miseris succurrere disco."*

Now, as to our collection of books, Martin F. Tupper, in his proverbial philosophy, has given us a few lines upon books which I feel impelled, on this auspicious occasion, to quote:—

"O books, ye monuments of mind, concrete wisdom of the wisest;
Trees yielding all fruits, whose leaves are for the healing of the nations:
Groves of knowledge, where all may eat, nor fear a flaming sword:

Gentle comrades, kind advisers; friends, comforts, treasures,
Who can weigh your worth?"

These are the words of a great scholar and delightful poet, and one who loved his books. But he is not alone in this respect, for many distinguished authors have written and many noble poets have sung the praises of books. The Fellows of the Academy are not behind in this matter.

In The Tempest, his last drama, the myriad-minded Shakespeare makes old man Prospero, one of his most perfect characters, say:—

"My library,
Was dukedom large enough."

Our library is growing beyond a dukedom into a veritable kingdom, to become ere long an empire of knowledge; or better, perhaps, a wide ocean of thought over which those in search of pearls of wisdom shall be constantly voyaging hither and thither; or, coming ashore, shall drink from the Valclusa fountains flowing from the writings of the great masters of medicine.

If any one desires to know how books may entwine themselves around the affections of their owner and fond peruser, all he has to do is to read what Washington Irving has to say in his sketch book of Roscoe. Mr. Roscoe was a distinguished scholar but not a poet; yet, when he became financially embarrassed and his rare collection of books were sold and scattered to all the points of the compass, his feelings were keenly touched, and he gave to the world one of its most beautiful sonnets at this enforced parting with these literary treasures. May Roscoe's sentiments be ours, and so, I give you his lines:—

"As one who, destined from his friends to part,
Regrets his loss, but hopes again erewhile
To share their converse and enjoy their smile,
And tempers as he may affliction's dart.
Thus, loved associates, chiefs of elder art,
Teachers of wisdom, who could once beguile
My tedious hours, and lighten every toil,
I now resign you; nor with fainting heart:
For pass a few short years, or days, or hours,
And happier seasons may their dawn unfold;
And all your sacred fellowship restore,
When, freed from earth, unlimited its powers,
Mind shall with mind direct communion hold,
And kindred spirits meet to part no more."

Here is love, indeed, for his books; and, through them, for their authors whom he hopes to meet when spirit communes with spirit.

The volumes now accessioned are almost 13,000 in number; and with the journals, are estimated to be worth at least $38,700. Thus it will be seen that our building and furnishings, our invested funds, our pictures, and our books and journals total up to the splendid value of over $90,000. Against this is a debt of only $3,775.35, but there are still unpaid subscriptions to come in from the Fellows of over $3,000. The Fellows have been generous in the past; for their gifts in books run up to at least 7,000, and their gifts in money amount to fully $25,000. These are the Academy's achievements. May I urge that the Fellows who have not yet contributed to the Building and Foundation Funds shall lose no time in doing so. There should be no defaulters; for here is a rare privilege to all. The young Fellow of to-day has a great possession into which he may enter and partake of its many fruits. The many books and journals of the Academy are so many wells of the living waters of knowledge from which he may drink often and deeply, and not exhaust the supply for others. We can look into the far off future and hear him say, with Virgil, of the times when he met his co-workers,—"*Haec olim meminisse juvabit,*"—he will rejoice to recall these things of old time.

From our book shelves there looks down the accumulated wisdom of twenty-three centuries, from the time when the immortal Hippocrates laid down the foundations of medical science and practice, to the present day. In our Academia, the Fellows can hold communion with the great Masters in Medicine of the past. There they can sit at the feet of Hippocrates, Galen, Morgagni, Borelli, Harvey, Sydenham, Vesalius, Lister, Jenner, Boerhaave, Charcot, and all such as *Vixere fortes ante Agamemnona.* In the writings of these great men, it will be found that the seach for truth is a long and tedious one, and that the old Latin saying *per dubitandum ad veritatem pervenimus* is ever true. Thanks to those great dead; for we are what we are because they were what they were. Ever remember that what has been, has been, for what is to be; and though generation after generation buries the workmen, yet generation after generation continues the work.

The Fellows of the Academy, as already said, have been truly mindful of it in gifts of books, journals, pictures, and money; but, even of greater value than these, they have been

most generous in their gifts of their time and talent in moulding its career and hastening on its growth. But there remains much yet to be done,—there is work for all and a welcome for all to join hands in our noble tasks; for there are no jealousies among the workers. There are many difficulties to be overcome, but, let me inspire you with the last lines in Dante's immortal poem:—

> But yet the Will rolled on, like a wheel
> In even motion, by the Love impell'd,
> That moves the sun in heaven and all the stars.

As the divine will can "move the sun in heaven and all the stars," so can our wills move forward the Academy in its purpose of clarifying our social relationships, of widening and deepening our scientific achievements, and of building up a great library. May there never be as in Measure for Measure "A war twixt will and will not," but, rather, be it as from the poet, Crabbe,—"Be there a will, and wisdom finds the way."

Labour and its Complications

A Bladder Stone as a Mechanical Hindrance to Birth (Blasenstein als mechanisches Geburtshindernis). *Zentralbl. f. Gynaek., 1921.*

H. Ebbinghaus.

Wishing to interrupt a second pregnancy at its outset, the author's patient introduced into the uterus the hard-rubber tube of a child's syringe. The point of the tube broke off in the bladder. The patient then suffered from bladder disturbances which were ascribed to the pregnancy. During labor the child's head became fixed in the small pelvis. The house physician discovered a very hard thickening behind the symphysis which he decided was an osteoma. He sent the patient to the clinic where the object was thought to be a foreign body in the neck of the bladder. At operation, performed immediately, a bladder stone measuring 6 by 4.4 cm. and weighing 30 gm. was found. Immediately following closure of the bladder a 6 lb. child was born. The bladder stone had formed around the broken-off hard-rubber tube. A vesicovaginal fistula which had resulted was operated on successfully a short time later.

Surgery, Gynæcology and Obstetrics.

Dibromin, an Improved Surgical Disinfectant

By Docteur Francois de Martigny, Membre de la Societé de chirurgie de Paris, Chirurgien de l'Hotel Dieu, Chirurgien en chef de l'Hôpital Francais, Montreal, Quebec.

Some very interesting and impressive observations were recently made at Hôpital Francais in a study of forty-five septic surgical cases treated with solutions of Dibromin. This preparation is a bromine compound. It is a pure, chemical, crystalline substance, colorless and odorless, containing fifty per cent. bromine (dibrom-malonyl-ureide). It is rapidly soluble in water and will remain stable in solution for at least a week. The chemical stability of Dibromin is an important factor as it will remain in its original form indefinitely if put into gelatin capsules and kept dry. In this form the preparation can be conveniently used for making extemporaneous solutions when desired. This feature alone seems to have solved the problem that has always confronted the surgeon who formerly used chlorine compounds.

Unpublished reports of laboratory tests show that Dibromin is a very active germicide as compared to phenol, acriflavine and iodine. This is especially true when tested against such pathogenic organisms as B. pyocyaneus, Streptococcus hemolyticus, Staphylococcus aureus, B. Diphteria and Pneumociccus. This bromine compound appears to have a selective action on bacteria by reason of the oxidizing effect of the bromine, and at the same time shows little or no effect upon animal tissue. It is also devoid of objectionable properties such at toxicity, odor, instability and taste. The majority of chemical substances which have been employed as germicides or antiseptics, while effective, unfortunately possess other properties which limit their use on living tissue. Dibromin is comparatively non-irritating when fresh solutions of proper strength are used.

In the beginning we used solutions of 1:2500; these did not give us the results most desired. The strength was then increased to 1:1250 and 1:800; such strong solutions seemed to be more desirable as the immediate effect upon the infection was without question. In a few cases the 1:800 solution caused a slight burning sensation, which was not experienced following the use of 1:1250. This latter strength was apparently sufficient to control active forms of infection. All cases first

received the necessary surgical attention in the way of establishing drainage and removing any foreign particles. Irrigation was then applied every two hours; the interval, however, between applications lengthened as improvement progressed.

The following reports of cases presenting rather extraordinary infections are illustrative of the variety of conditions that may be treated with Dibromin.—

Case No. 1.—Child. Age, 12 years.

General Peritonitis, which is called in French "A Free Peritonitis." The case was so bad that all the intestines were actually swimming in pus. Thorough drainage was established and irrigations were made every two hours. In six days the infection was entirely eliminated and everything was clean. The wound closed and healed promptly. The rapid recovery of this patient was marvelous.

Case No 2.

Appendicular abscess had been draining for a long time. All attempts by a country physician to close the wound had met with failure. Patient became suddenly ill and was taken to Montreal. The abdomen was opened for freer drainage; started irrigating with Dibromin 1:600 every two hours. Patient made a fine recovery in one month. Discharge discontinued and wound healed normally.

Case No. 3.

Case of long standing *peritonitis with a fistula.* Received lavages every three hours and in six weeks the wound was healed and patient appeared to be entirely cured.

Case No. 4.

Laborer in an accident received a *compound fracture.* Wound full of debris, of clothing, mortar, sand and wood shavings. Operation performed three hours later. Patient received 3,000 units Antitetanic Serum and irrigations every three hours. The wound was completely healed in ten days.

Case No. 5.

Case of *tubercular cystitis* with right kidney tubercular. Micturition every ten to fifteen minutes. Urine purulent and bloody, positive Koch. Treatment:—Nephrectomy, lavages night and morning with Dibromin solutions, as follows:—

1st week.....1:2500 solution
2nd " .....1:1250 "
3rd " .....1:800 "

Continued this last dosage. In six weeks urine perfectly clear, Koch negative, micturitions normal.

Case No. 6.

Patient, female, suffering from an *old case of cystitis,* painful voiding. Lining of bladder very thickened and rough in appearance through cystoscope. Lavages daily with a solution of Dibromin 1:1250. Case cleared up completely in ten days.

In analyzing results following the use of Dibromin solution in the entire series of cases it was noticed with particular interest that this preparation possessed distinct germicidal properties, as evidenced by the prompt effect upon the infection. There was no evidence whatever of irritation when brought into contact with delicate tissue. Being colorless and odorless, there was no objection on the part of the patient. As a germicide, to be applied by means of irrigation and wet dressings, it seems to meet all requirements.

330 Sherbrooke St., E.
Montreal, Canada.

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BUSINESS ADDRESS 61 Queen St. East, Toronto, Canada

Editorial

Recent Work in the Problem of Diabetes Treatment by Pancreatic Extracts

A contribution to the treatment of diabetes has recently been made by workers in the Departments of Physiology, Chemistry and Medicine in the University of Toronto, in a paper appearing in the March, 1922, issue of the *Journal of the Canadian Medical Association*. It promises to be of value, after further clinical trial, and the work so far done in the Department of Physiology and Chemistry which has occupied ten months, is very creditable to the skill and enthusiasm of the workers. These are, in Physiology, Messrs. F. G. Banting and C. H. Best, and, in Chemistry, J. B. Collip. Drs. W. R. Campbell and A. A. Fletcher, of the Department of Medicine, have been responsible for the clinical study of the question in the General Hospital.

A brief summary of the work reported so far may be given as follows:—

1. The difficulty of securing from the pancreas the internal secretion acting from carbohydrate metabolism was found to be due to the destruction of the active principle by the enzymes also existing in such extracts. Much laborious effort was expended by the physiologists upon this problem, in the course of which it was found that the active principle is the same essentially, no matter from what animal it is obtained. The source finally adopted is normal adult ox-pancreas.

2. The Department of Chemistry seems to have solved, at any rate for laboratory and experimental purposes, the problem of providing in sufficient quantity an extract of the whole gland, "which is sterile and highly potent, and which can be administered subcutaneously to the human subject."

A detailed report is promised at an early date of the method of extraction, purification and concentration. It is to be hoped that if not yet applicable on a commercial scale, the method may be soon fully perfected for large use.

3. The clinical work so far done seems quite enough to justify the following conclusions published from the medical wards of the General Hospital:—

1. Blood-sugar can be markedly reduced, even to the normal values.
2. Glycosuria can be abolished.
3. The acetone bodies can be made to disappear from the urine.
4. The respiratory quotient shows evidence of increased utilization of carbohydrates.
5. A definite improvement is observed in the general condition of these patients, and in addition the patients themselves report a subjective sense of well-being and increased vigor for a period following the administration of these preparations.

The work has not been carried out to a point tending to show whether an ultimate cure of the disease can be obtained by a remedying of the cause. It would rather appear so far as if the remedy were one parallel to the brilliant usefulness of thyroid extract in cretinism and myxoedema. Even this will be a priceless contribution to the resources of modern medicine if fully realized.

Regret must be expressed at the appearance in at least one of the daily papers of Toronto, of a very extended notice, running over several columns, of the original article, within a

day or two of its publication in the *J. C. M. A.* Such publicity, whether with or without the consent of the workers, is deeply to be deprecated as wholly contrary to the public interest. Some comfort may be extracted from the circumstance that the flamboyant double column group photograph of four of the workers, which appeared in connection with the newspaper article in question, did not contain a picture of anyone engaged in the active practice of his profession. The domesticity and reticence which characterize the normal practitioner of medicine were thus not violated.

Walter Moxon and His Pilocereus Senilis

The *New York Medical Record* of February 11th has a contribution by John Ruhrah, M.D., telling us some interesting facts regarding Walter Moxon (whom we knew as "Wilks and Moxon").

Dr. Ruhrah says that Moxon as a teacher was a distinct success, brilliant, suggestive, witty, but above all things, imbued with the idea that *nothing could replace clinical observation, a part of medicine suffering somewhat in our day from our reliance on the laboratory and the Roentgen ray.*

He once said, "The only use of books is to instruct you in the meaning of a name. Your own eyes and ears and touch must teach you the nature of things."

"Did you ever see a caddis worm? When I was fishing I never could stick a hook into a caddis worm." (a case worm, the larval stage of a caddis fly—a trichopterous neuropterous insect, like a phryganied). "I never contemplate a caddis worm without a certain feeling of brotherhood. Nature is essentially too satirical in the way she takes off one thing when she designs another. Everyone has, by nature, the faculty of picking up bits wherewith to furnish himself according to the ground he is upon at the time, as the caddis worm dresses her self in scraps of green when she is upon the leaves, and in bits of brown when upon the stones. Don't despise the simile and think it rough. Don't say to me, 'Everything has both its higher and its lower parallels; why should our elevated minds take the lower parallels?' I should be tempted to reply, 'To keep us down at our proper level, O brother worms.' In point of fact, I expect, the mental dress of most of us is rougher by comparison with the best satins and velvets at Swan & Edgar's. *Most minds are like maggots dressed in scraps, and all that is their own is just the glue the scraps are stuck with;*

and so much is the weakness of even this glue recognized that in common conversation your subject must not be too deeply or seriously followed. 'The human mind won't endure it.' In other words, you mustn't shake the scraps much for fear you see the maggot."

In "Nothing, a Protest against Buttermilk," he states his ideas concerning books:

"But, alas! there is a vast heap of trivial, petty and fragmentary and doubtful generalizations which you will be made to learn in your great big books. Study well your books, but things teach more of you. Books tutor your reason; things tutor also at least your imagination, and if you are observant will store in you a fund for all your faculties, from fancy up to faith. Students must be fed on very concentrated intellectual food in their books, but the amount of it should bear some proportion to their time and powers. Soon they will be like so many maggots born so very deep in such very big nuts that the poor things never or rarely succeed in eating their way out to wings and daylight; perishing thus miserably short of a higher life because the supplies of their larval stage were too voluminous. Such abortive book-worms the colleges are trying to make you all. Help yourselves, or God help you!"

This is very interesting, and we should advise all, who have the opportunity, to read the whole sketch from which these excerpts are taken. Perhaps some of the older members of the profession will concur when we say that our own respected and beloved Joseph Workman of Toronto was, in many respects, like Walter Moxon.

Public Health in Hamilton

We have received the report of the Medical Officer of Health, Hamilton, for the year ending October 31st, 1921. Like all Dr. Roberts' annual reports, it is, in many respects, very interesting. The estimated population of the city at present is 118,000. The death-rate, 10.65 per thousand, is probably the lowest ever recorded in Hamilton.

The mortality rate among infants under the age of one year was 77.6 per thousand. This is not quite satisfactory, but shows some improvement on previous years. Of the 259 deaths, 110, or 42%, resulted from malnutrition and gastro-intestinal diseases. Dr. Roberts thinks that if the parents of these little ones had been better informed, many deaths might have been prevented.

Dr. Roberts records with considerable satisfaction favorable conditions regarding influenza, which was very prevalent, with a high death-rate, during 1920, but almost entirely absent in 1921. Among other communicable diseases, diphtheria was probably the most serious, there being 608 cases with 41 deaths. This would not have been considered very serious a few years ago but Dr. Roberts thinks the mortality rate from this disease could be further materially reduced. by preventive measures and curative treatment carried out early and thoroughly.

Dedication of the New "Osler Hall", Toronto Academy of Medicine, April 4th, 1922

The President, the Council, and the Fellows of the Academy of Medicine are most heartily to be congratulated upon the success which has finally crowned their long and earnest effort towards providing at once an adequate tribute to the memory of one of Toronto's greatest sons, and suitable addition to the home of the Academy.

The programme of the proceedings on the occasion of the formal opening and dedication was as follows:

Osler Night

1. Dedication of the new Auditorium as the "Osler Hall." VENERABLE ARCHDEACON CODY
2. Presentation of a Portrait of the late Sir William Osler. SIR EDMUND OSLER
3. Unveiling of the Portrait.
   HIS HONOR, THE LIEUTENANT-GOVERNOR
4. Short Addresses by Osler Students:
   (*a*) Influences Bearing on a Great Career.
   N. B. GWYN
   (*b*) Osler from the Standpoint of the House Physician. HAROLD PARSONS
   (*c*) Osler from the Standpoint of the Undergraduate. D. J. GIBB WISHART
   (*d*) Osler as an Incentive. C. D. PARFITT
   (*e*) The Academy's Debt and Tribute to the Memory of Sir Wm. Osler.
   H. B. ANDERSON

The publication in full of the addresses made in accordance with this programme will follow in due time.

A description of the commodious and suitable addition to the Academy's premises would make undue demands upon our space. But it may be noted that the handsome auditorium, seating in comfort some 240 persons, is to be known now to all time as the "The Osler Hall." Its most valuable ornament is a replica of the well-known Sargent portrait of Sir William, which hangs in Johns Hopkins University, Baltimore.

It is desired, however, chiefly to congratulate all concerned upon the immense value to the Academy, and to the medical community at large, of such a ceremony, and so exceedingly well carried through, as that of Tuesday evening, April 4th. Both in conception and in execution the proceedings may be fairly and justly said to mark the culminating point of the Academy's performances so far. The programme was well-balanced and dignified, it was admirably carried through, its different phases were harmonious and consecutive, and the literary and scholarly quality which characterized each successive item in it, if possible more fully than the last, would have been a joy to the great physician in whose memory it was preferred, could he have been present in the flesh to see and hear.

Address of Dedication

By Rev. Canon Cody, D.D., LL.D.

We are met to-night to dedicate this Hall to the memory of the late Sir William Osler, Baronet, sometime Regius Professor of Medicine in the University of Oxford. He was a Canadian by birth and education, who became a citizen of the world. He was one of the most distinguished and best-beloved of physicians. He was an inspiring and wise teacher. He had a singular gift of choosing out men of promise to carry on his work and to be in turn teachers of the healing art. He made comrades of his fellow-workers. He was a man of letters and a consummate master of style. He was a man of sparkling wit and genial humor, which made smooth the rough ways of life for many weary spirits. He was a noble embodiment of tolerance and charity. His presence banished strife and suspicion. He was a man of great loving-kindness, of rich personality and of unaffected simplicity. His great qualities of head were matched by equally great qualities of heart. He realized in large measure his personal ideals—of doing well the day's work; of acting the Golden Rule towards patients and professional brethren; of cultivating such a measure of equanimity as enabled him to bear success with

humility, the affection of friends without pride, and to be ready when the day of sorrow and grief came (as it came to him when his only son gave his life in the Great War) to meet it with the courage becoming a man. He was a man of faith, large and genial; of hope, reasonable and infectious; of love, pure and abundant. He rounded the allotted span of years without weariness and without failing, amid proofs of friends and with no enemy. This man is worthy your commemoration.

Act of Dedication. In the faith of the Lord our Healer and of Jesus Christ the Great Physician of body and soul, we dedicate this Hall to the honored memory of His Servant, William Osler, and for the promotion of the healing art, the furtherance of medical and surgical study, and the fostering of good-will and fellowship among members of the medical profession.

News Items

Sanitary Conditions in Ontario

According to reports received by the C. O. H., Ont., during the last two months, certain municipalities were in default in the matter of orders given them regarding the improvement of their water supplies. These municipalities were Smith's Falls, Kincardine, Goderich, Hanover, Forest and Dunnville. The sanitary conditions in all municipalities were unsatisfactory. In certain of the municipalities it has been found necessary to take legal action with a view to compelling them to correct their unsanitary conditions.

Oleomargarine

At a meeting of Ward 8 Conservative Association, Toronto, Mrs. Gurnett delivered an address on Oleomargarine. After the address the following resolution was passed:

"That this association petition the Dominion Government, asking that no restriction be placed on the manufacture and sale of Oleomargarine in Canada."

A copy of the resolution was forwarded to Ottawa.

Proposed Chiropractic College

A bill to incorporate a Canadian Chiropractic College, came before the Private Bills Committee of the Ontario Legislature, April 11th, but apparently was not considered very seriously. A gentleman, calling himself Dr. Duval, spoke for the chiropractors.

When asqed by Dr. Forbes Godfrey about a person being bitten by a dog, he said he would recognize that as in the province of surgery not of chiropractic. When asked about educational requirements for entrance, one prospectus said that candidates for entrance must be able to read and write. When asked if that is all that is required, Mr. Duval replied, "Yes, Sir." When asked if the chiropractors had ever made application to a university for a Chair in Chiropractic, Mr. Duval answered "No, as medicine and chiropractic are incompatible, they won't work in harness."

The following statement appeared in the Toronto *Globe*, April 12th: "In all the din and confusion of the taking of the vote, and amid the roar of No's that greeted the putting of the question, there could not be heard a single voice raised in its support."

The next meeting of the American Public Health Association will be held in Cleveland, October 16th, to 19th.

The Canadian Public Health Association

The Annual Canadian Health Congress will be held in St. John, New Brunswick, June 6, 7, 8, and 9th, the following societies are combined for this meeting: Canadian Public Health Association, Canadian National Council for Combating Venereal Disease, and Canadian Association for Prevention of Tuberculosis. An excellent programme has been provided, and prominent speakers on Public Health Topics will be present.

Society Reports

Ontario Medical Association

Our provincial association is now forty-one years of age, and on May 30th, the forty-second annual meeting will commence. Among all the presidents, we have had none more worthy than the present incumbent, Dr. Frank Farley, of Trenton. Since the last meeting of the society held at Niagara Falls, he has worked continuously and faithfully in the interest of the society of which he is the presiding officer. He and the secretary have travelled over most of the province attending medical meetings, and have urged upon the general profession the necessity for joining our association. In a "foreword" addressed to the general profession, the President says the response to date has been splendid, but we are far from 100 per cent. strong. He considers that we should show a united front in directing our affairs, especially during the present chaotic condition of medical legislation in our province.

Annual Meeting

The next meeting of the Association will be held in Toronto on May 30th to June 2nd. The committee in charge has been at work for several months and believe that they can promise a programme which will be acceptable to all.

On the evening of May 29th, there will be a meeting open to the public, which will be addressed by Dr. Macfie Campbell Director of the Boston Psychopathic Hospital, on "The Health of the Mind."

May 30th will be devoted to business, chiefly at meetings of the Directors and the Committee on General Purposes. The dinner on that evening will be followed by a Round Table discussion. The succeeding three days will be devoted to scientific work—the business sessions of the Association being interspersed. The ladies are invited to the Association Dinner on Wednesday night.

All the meetings, general and special, will be held in the University buildings, special arrangements are being made for meals.

Notes

There are seventeen active committees and it is hoped that the members will acquire full information as to the work through bulletins which will be regularly issued.

Any member who wants an assistant or a locum tenens for any part of the coming summer is requested to send full particulars to the Secretary.

All members of the Association who expect to attend the meeting are requested to send in their names at once to the Secretary, giving full particulars in the following regard:—

(1) Will they be accompanied by ladies?

(2) Will they stay at a hotel or with friends?

(3) If required, the local committee will be glad to secure accommodation for any members.

(4) Those who hope to attend the Round Table Dinner on May 30th, or the regular Association Dinner on May 31st, are requested to inform the Secretary.

Federal Income Tax

Income tax returns for the year 1921 should be filled in by every practitioner during the month of April, or as early in May as possible. According to the Government ruling, the onus of procuring the forms rests upon the doctor.

The statutory reduction from income is $2,000.00 for a married man and $200.00 for each child under 18, and $1,000.00 for a single man. In addition, the following deductions are allowed:—rent: office, separate from house, full rent, office in house, in proportion to the space occupied, usually about ¼ or ⅓; heat and lights, same as rent; office girl, full amount; housemaid, same as office rent, ¼ to ⅓ of wages and cost of maintenance combined; motor car, cost of maintenance and allowance for depreciation after the first year. Books, instruments and office fixtures, 10 per cent. of original cost or depreciation; drugs, office supplies, stationery, stamps, etc., full amount.

Further particulars about these points or any others that may arise, will be furnished on application to the Secretary of the Ontario Medical Association.

Annual Dinner of the Medical Alumnae

The annual dinner given by the Medical Alumnae of the University of Toronto, in honor of Magistrate Patterson and the women students graduating in medicine, was held in the Academy of Medicine on April 4th.

This year's graduating class, fourteen in number, is particularly interesting.

After the dinner, toasts were proposed to the King, to our Alma Mater, to Dr. R. B. Nevitt, Dean of the former Medical College for Women, to the new Magistrate, Dr. Patterson, and to the graduating class.

The speakers of the evening were Dr. Edna Guest, Dr. Minerva Reid, Dr. Lucas Bennett, Dr. Stowe-Gullen, Dr. Margaret Patterson, Dr. Elizabeth Stewart, and Miss McLatchy, president of the graduating class. The President of the Alumnae, Dr. Sproule-Manson, in her address, urged upon the members the importance of realizing their existence as an active body of women. She said in part: "We are proud of our British Empire, proud of our Canada, proud of our profession. Let us be proud of ourselves as medical women, not with the arrogant pride of an isolated body of women, but that pride which lends a spirit of co-operation, of purposefulness, of tolerance, which carries us along with a confidence in each other, which is quick to praise where praise is due, to criticize if criticism is constructive. . . In conclusion, one point must be emphasized—the importance to the women of membership in the Academy of Medicine. Physicians owe it to themselves, to the profession, and to the public."

Appreciation was expressed of the opportunity extended the women to be present at the dedication of Osler Hall and the unveiling of the portrait of the late Sir William Osler.

Isabel Ayer (*Secretary*).

At a meeting of the Peterborough Medical Society, held April 7th, the following officers were elected:—Honorary-President, Dr. J. R. Fraser, Lakefield; President, Dr. E. H. Wood; First Vice-President, Dr. H. M. Yelland; Second Vice-President, Dr. A. Moir; Secretary, Dr. Graham MacDougall; Treasurer, Dr. N. O. Buchanan; Ex-officers, Drs. J. A. Morgan, and G. R. Scott.

Correspondence

The Chiropractic Campaign

To the Editor, The Canadian Practitioner:

In the press of recent date there appeared a list of the chiropractors in Ontario who have been approved by the Board of Examiners of this cult. Pure gall and cheek have succeeded in carrying many a person onward on their road to success, though very ignorant of all the essentials of their avocation. This is the case with Chiropractic. Never in the history of the world has there been any body of persons banded together to propagate so false a system of teaching, as is to be found under the term chiropractic.

It was founded by the late D. D. Palmer. His views on anatomy, physiology, pathology, and the treatment of disease were woefully wrong. But crazy as his views were on these subjects, the real folly of his teachings only becomes fully revealed when one examines his views on the causation of disease. Here he floundered in a quagmire of downright ignorance. He held that diseases arose from some displacement (lesion) of the spinal column, which in turn caused pressure on the spinal nerves, which in turn caused fevers, tumors, pains, insanities, and so on to the end of the list.

Now, for this weird concoction of views on disease, there is not the least foundation to rest upon. It is true that there are sometimes diseases of the spinal column, such as tuberculosis of one or more of the bones, or an osteosarcoma, or a displacement from injury. But such cases are not numerous and can be readily diagnosed. They call for very special and proper treatment; but not of the punching, twisting, pulling kind, advocated by the chiropractic.

We have carefully read pamphlets and articles which set forth the practice of this cult. As a means of treating disease, it is a positive disgrace that such should be permitted at this date, when so much is known about disease. There may be a few nervous persons who think that they have something wrong with themselves, and who are at times benefited by the manipulation along the spine, much in the same way that they would be made to feel better by rubbing the abdomen, or any other sort of manual treatment, provided their minds are

carried along in the process and they are acted upon suggestively. Chiropraxy may, therefore, help for the time being some neurotics much as Christian Science, or Dowieism, or the Indian fakir does through the imagination.

It is absolutely nothing short of criminal for a chiropractor to undertake the treatment of typhoid fever, pneumonia, appendicitis, cancer, or diptheria, holding the views he does regarding these diseases. When will law-makers rise to the conception of the sacredness of human life and health, and put an end to such a cult practising medicine?

Yours truly,
ONLOOKER.

A Hospital for East Toronto

To the Editor, The Canadian Practitioner.

One must be blind or devoid of good judgment who would not at once admit that the East end of Toronto has irresistible claims for a hospital. There is now a very large area of the city carrying a large share of Toronto's population east of the Don. This immense area has no hospital accommodation worthy of it further east than St. Michael's Hospital; and this is a long way west of the Don. We take this opportunity of calling attention of the City Council and people of influence and wealth to this need.

To make a hospital attractive and useful there should be ample site. No time should be lost in securing a block of land before all the good locations are broken up and built upon. If this is not done the cost will be greatly enhanced. Surely there is public spirit enough throughout the East end to organize an association with this object in view. If a good site was located and purchased, it would be no longer possible for the City Council to turn a deaf ear to the demand for adequate assistance. The miles of city east of the Don can only boast of the Isolation Hospital. For general purposes this is of no value whatever. We are in entire accord with the aspirations of many of the doctors in the East end, who urging this question to the front.

Yours truly,
WELL-WISHER.

Obituaries

Dr. H. MacDougall King, M.B.

Dr. MacDougall King died in Denver, Colorado, March 18th, from tuberculosis, aged 44. Dr. King was born in Kitchener, Ontario, son of Mr. John King, K.C., who, in his earlier days, lived in Kitchener and, after leaving that town, resided for many years in Toronto, where he was well known as a leading barrister and a lecturer in the Law School.

Dr. King received his medical education in the Toronto School of Medicine, and graduated, M.B., from the University of Toronto in 1902. During his student days he went to the South African war and served with the R.A.M.C. While there he contracted enteric fever. Soon after graduating he commenced practice in Ottawa, choosing that city because he wished to be near his brother, Hon. Mackenzie King, now Prime Minister of Canada. About the year 1912 he contracted tuberculosis and soon after removed to Denver, Colorado, where he remained during the rest of his life. While in Denver he realized fully the nature of his illness, and his poor prospects for recovery, and showed wonderful pluck combined with indomitable courage and industry in writing certain books, the most important of which was entitled "The Battle With Tuberculosis and How to Win It."

James King, M.D.

Dr. J. King, of Leamington, Ont., died at his home, March 24th, aged 53. He graduated in 1893 and soon after commenced practice in Leamington, where he remained in active work up to the time of his last illness.

Thomas Walter Simpson, B.A., M.D.

Dr. T. W. Simpson died at his home, Napanee, March 15th, aged 66. He graduated, B.A., University of Toronto, in 1882, and M.D., Victoria University in 1884. After graduating he did post-graduate work in Great Britain, and became L.R.C.P. (Edin.) in latter part of '84.

George Sheldon Bingham, M.D.

Dr. G. S. Bingham, a well-known practitioner of Hamilton, died unexpectedly at his residence, April 6th, aged 65.

After a short illness of a few days he was supposed to be recovering, when he suddenly took a turn for the worse and died within a short time. He graduated M.B., Toronto University, and M.D., Victoria in 1881. Soon after graduating he settled in Hamilton, where he acquired a large practice and a long list of personal friends. His father, Dr. George W. Bingham, who graduated M.B. from Victoria in 1865, is still alive and fairly well at the age of 92.

Book Reviews

International Clinics, a Quarterly of Illustrated Clinical Lectures and especially prepared Orignal Articles on Treatment, Medicine, Surgery, etc., by leading members of the Medical Profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia. Vol. I., Thirty-second series, 1922. Philadelphia and London, J. B. Lippincott Company.

This volume contains many excellent clinics on every day subjects, by such men as McCrae and Christian. Then there are articles which will appeal to everyone, and at the end there is a summary of medical progress during 1921. Perhaps the outstanding contribution this time is an article by Emil G. Beck, of Chicago, on the treatment of apparently hopeless cases of cancer treated by surgery and radium. By radical surgery followed by radium, he was able to save about 15% of this group.

On the whole, this volume is up to the high standard set by the publishers more than a quarter of a century ago.

American Illustrated Medical Dictionary (Dorland). A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science Nursing, Biology, and kindred branches; with new and elaborate tables. Eleventh Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M.D. Large octavo of 1,229 pages with 338 illustrations, 141 in colors. Containing over 1,500 new terms. Philadelphia and London: W. B. Saunders Company, 1921. Flexible leather, $7.75 net, thumb index, $8 75 net. J. F. Hartz Co., Ltd., Toronto, sole Canadian Agents.

The fact that the American Illustrated Medical Dictionary has reached the Eleventh Edition illustrates its popularity and worth. During the two years since the Tenth Edition was published, the field of Medical Science has considerably broadened, necessitating the coinage of new terms. This edition contains several hundred new words and definitions covering the various branches of Medical Science. In its 338 illustrations the text is amply and minutely illustrated.

It is a reference book which we can unhesitatingly recommend to all those in any way connected with the medical world.

The binding, paper and print make it an attractive as well as a useful volume.

Essentials of Laboratory Diagnosis designed for Students and Practitioners, by Francis Ashley Faught, M.D., formerly Director of the Laboratory of the Department of Clinical Medicine and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, etc., Philadelphia, Pa. Containing eleven full-page plates (four in colors) and seventy-eight text engravings. Seventh revised and enlarged edition. Philadelphia: F. A. Davis Company, Publishers. 1921.

The present revised seventh edition of this well-known book is the first to appear since 1916, and necessarily contains much new material. The effort has been made, and we think successfully, to present this new work in a manner to be readily grasped by the clinician, and not only by the highly trained laboratory worker, who is perhaps by no means in close touch with the practical application of the methods.

References are frequent for anyone desirous of making fuller investigations or consulting original articles.

This Clinical Laboratory Manual has always been popular and there is every reason to expect that the same cordial reception will attend the appearance of the present volume.

Clinical Electrocardiography. By Frederick A. Willius, M.D. Section on Clinical Electrocardiography, The Mayo Clinic, Rochester, Minnesota, and the Mayo Foundation, University of Minnesota. Octavo of 188 pages with 185 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, $5.50 net. J. F. Hartz Co. Ltd., Toronto, Sole Canadian Agents.

This book embodies the work of one who has been using the electrocardiograph for a long time. The subject is treated in a thoroughly scientific manner beginning with the fundamental principles and dealing with all the more difficult heart diseases that one usually comes across. The wonderful hospital facilities at the Mayo Clinic make this work extremely valuable and we can heartily recommend it to all workers in this branch of Medicine.

Experimental Physiology. By Sir Edward Sharply-Schafer, F.R.S., Professor of Physiology in Edinburgh. Third Edition, with 90 illustrations. Longmars, Green and Company, 39 Paternoster Row, London, Fourth Avenue and 30th Street, New York; Bombay, Calcutta and Madras, 1921.

The third edition of this handbook is just as interesting as ever, but without much change. For ten years this has been a standard in all physiological laboratories where students are taught the rudiments and essentials of this basic science. Now that lectures are being replaced by practical work in all medical schools, the demand for such a volume will be greatly increased.

A Text-Book of General Bacteriology. By Edwin O. Jordan, Ph. D., Professor of Bacteriology in the University of Chicago and in the Rush Medical College. Seventh Edition, thoroughly revised. Octavo of 744 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1921, Cloth, $5.50 net. J. F. Hartz Co. Ltd., Toronto, Sole Canadian Agents.

The very fact that a text-book on Bacteriology has reached a seventh edition shows how much it is appreciated by teachers and students all over the continent. The chapters on influenza and anaerobes have been entirely rewritten, in view of the recent advance in our knowledge. There are other important changes and additions to bring the work up to date. The article on botulism is particularly good and covers the literature up to the beginning of the year.

The method in which the subject is treated commends itself to laboratory methods of teaching, although this is not a handbook. The complete study of all kinds of bacteria is carried out, pathogenic, commercial soil, etc., and all parts are thoroughly covered. There is no better text-book published.

Papers from the Mayo Foundation for Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1915-1920. Octavo volume of 695 pages with 203 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth $11.00 net. J. F. Hartz Co. Ltd., Toronto, Sole Canadian Agents.

For many years the Mayo Clinic have published annually the papers of the staff. This volume is a collection of the best

that have appeared in a five year period, and are chiefly theses that were offered for a post-graduate degree. They contain, as would be expected, a great amount of new material, some undoubtedly of first-rate importance, and will, therefore, be eagerly sought by research workers. There are, however, many papers strictly clinical, such as the Barany tests, the treatment of chronic empyema, squamous-celled epithelioma of the skin, etc., which are of the highest order. Most of these articles have appeared in the various journals, but this collection of them will be greatly appreciated.

The paper and letter-press are, as usual, of the very best.

X-Rays and Radium in the Treatment of Diseases of the Skin. By George Miller MacKee, M.D., Assistant Professor of Dermatology and Syphilology, College of Physicians and Surgeons, Columbia University; Fellow of New York Academy of Medicine; etc. Large octavo of 602 pages with 250 engravings and 22 charts. Philadelphia and New York: Lea & Febiger, 1921.

A volume on the radiotherapy of skin diseases has been sorely needed for some time, and we feel confident that this work of MacKee's will adequately meet the requirements.

The early sections of the book deal with the physics of radiotherapy, and the chapter on general physics deserves special mention.

Several chapters are devoted to the question of dosage and technique. These are most valuable. It is difficult in treatment as new as radiotherapy to make definite standards, but such are gradually being formulated, and they are very fairly presented by MacKee. The chapters on the effects of rays on the tissues are of very great value not only from the point of view of proper treatment but because of the emphasis that is laid on the dangers incident to radiation. The pathological effects of radium and x-rays on the tissues are fully dealt with and these descriptions are supplemented by excellent illustrations.

The latter part of the work deals with various skin diseases, and in this connection one must mention the very excellent illustrations, which are of so much importance in a work of this nature. They have obviously been very carefully chosen, and are all that could be desired.

The book is written in a clear, readable style, and this is a factor which should make it especially attractive to the

beginner. The matter is excellently presented, and the book is well printed.

While the general principles of radiation with X-rays and Radium are similar, there are also distinct differences. This volume is essentially a work on X-rays although the part devoted to radium is excellent. It is hoped, however, that soon a similar work will appear, in which still more attention is given to the therapeutics of radium.

Ringworm and its Successful Treatment, by John P. Turner, M.D., Medical Inspector of Public Schools, Philadelphia, Pa. Illustrated by eight half-tone engravings. Philadelphia: F. A. Davis Company, Publishers. 1921.

This small monograph is written from the experience of one with opportunities of studying thousands of cases among school children. It gives briefly and concisely the essentials of the pathology, diagnosis, differential diagnosis and treatment of the disease.

For those who have many cases to treat and have not the advantage of radium therapy, the methods of radium therapy treatment outlined will be most valuable. It is a very readable and interesting publication.

Abstracts

Acute Septic Peritonitis. Mayo, W. J., *Surg. Gyn. and Obst., Feb.,* 1922.

Acute Septic Peritonitis still claims many deaths each year, but the deaths usually are attributed to the cause of the peritonitis and not to the peritonitis itself. The statistics of every well-organized clinic show that if the cause of acute peritonitis is removed within 6 or 8 hours, and a proper peritoneal toilet is made to cleanse the contaminated field, the resulting peritonitis will be slight and localized. After 12 hours the prospects of a favorable termination following the removal of the primary cause are greatly reduced; after from 24 to 36 hours such removal may do little to check the spread of the peritonitis, and the operation may greatly embarrass reparative processes and lead to a fatal issue.

It is an axiom in surgery that early operation is vital in the treatment of acute perforation of the appendix, gall bladder,duodenum, and stomach, and almost always cures. In this early stage is the surgeon's golden opportunity, not only to save the patient but to cure him. Experience has taught that if after the safe, early period has passed, the patient can be safely carried along for the several days of the intermediate stage, his natural resistance will usually succeed in limiting the peritonitis and localizing the infection. This is the surgeon's silver opportunity to save the patient, by evacuating septic products, although unfavourable conditions may prevent curative procedures.

Much harm has resulted from the failure to recognize the difference between the stage of contamination which is the immediate result of perforation, and can be successfully combated by early operation, and a spreading peritonitis resulting from the infection. The cause of the peritonitis is no longer the chief concern but rather the peritonitis itself. The results of plunging into the abdomen too late adequately to cope with the cause of the peritonitis, and too early to aid nature's attempt to repair have too often resembled the proverbial "green Christmas" in fattening the graveyard. Ochsner, in practising his starvation treatment of acute appendicitis and its results, first recognized the danger of operation in the stage between the safe early and the safe late stages of septic peritonitis related to appendicitis. For ten years following

the appearance of his articles, there was scarcely a meeting of a medical society in which violent controversy did not arise on the subject. The radicals, although usually wrong, left the field of polemics apparent victors in the controversy by reason of their dramatic portrayal of the diastrous results of *appendicitis,* emphatically proclaiming that appendectomy at any stage was the one and only treatment regardless of pathological conditions in the peritoneal cavity. This pronouncement is, of course, true if the peritonitis is localized to the immediate vicinity of the appendix.

Clinical experience has crystalized our knowledge of septic peritonitis. We now see clearly that intestinal peristalsis is the chief factor in the spread of the infection. Stopping food intake checks the peristalsis much more successfully than the opium treatment advocated by Alonzo Clark in the middle of the last century; although sufficient opium to relieve pain and produce rest is beneficial. The introduction into the body every 24 hours, of a large amount of fluid, from 2,000 to 3,000 cubic centimeters aids in washing out toxic products which may have gained entrance into the blood, and also aids greatly in maintaining the body resistance. If well-borne, proctoclysis is a good method of introducing fluid. For this purpose a solution made with one dram of bicarbonate of soda and two ounces of glucose to one quart of water is preferred. In many instances fluid by rectum tends to produce a certain amount of intestinal peristalsis and gas. In such cases the subcutaneous administration of a normal salt solution containing 3 per cent. of glucose has been found to be very satisfactory.

In the early stages of the pertonitis, when it has not progressed far beyond the immediate vicinity of its point of origin, the use of the ice bag is advisable, but in those cases in which large areas of the peritoneum are involved large hot packs applied to the whole abdomen and changed often, not only give comfort, but stimulate circulation in the abdomen.

All this does not mean that operation is never to be performed in the intermediate stages. Each case must be judged on its merits. The dictum of Murphy holds good, that if the surgeon does operate in the intermediate stage, he must "get in quick and out quicker," under local anæsthesia if advisable, and with least possible disturbance to patient.

Moral: Surgeons will and operators should beware of operating in the intermediate stage of acute, septic, spreading peritonitis.

Doctor: Did you ever stop to realize the significance of this fact about Grape-Nuts?

Probably no other food in the world is so thoroughly baked.

Cereal food that can be swallowed as a pasty bolus is not in a condition suitable for the action of the digestive juices.

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Selections

Menorrhagia Treated by Radium

Packer (*Le Scalpel,*) reports 22 cases of menorrhagia (where there was no question of malignant growth) treated by his method of using radium. In 11 cases there was no appreciable change in the uterus and in 11 myomata were present. The ages in the first group of cases varied from 42 to 55 years. Massive irradiations of radium and filtered *x* rays were given, and after one or two applications amenorrhoea was induced in all his group. In one case amenorrhoea occurred after a single intrauterine and extrauterine irradiation of 100 mg. of radium bromide. Some slight bleeding was sometimes observed in the process of the establishment of the amenorrhoea. Full details of each case is given, and in a subsequent communication the author proposes to give the results obtained in the other 11 cases.—*British Medical Journal.*

The Fads and Fancies of Obstetrics

A Comment on the Pseudo-Scientific Trend of Modern Obstetrics: *Am. J. Obst. and Gynæc., 1921.*
R. W. Holmes.

The author summarizes his article as follows:

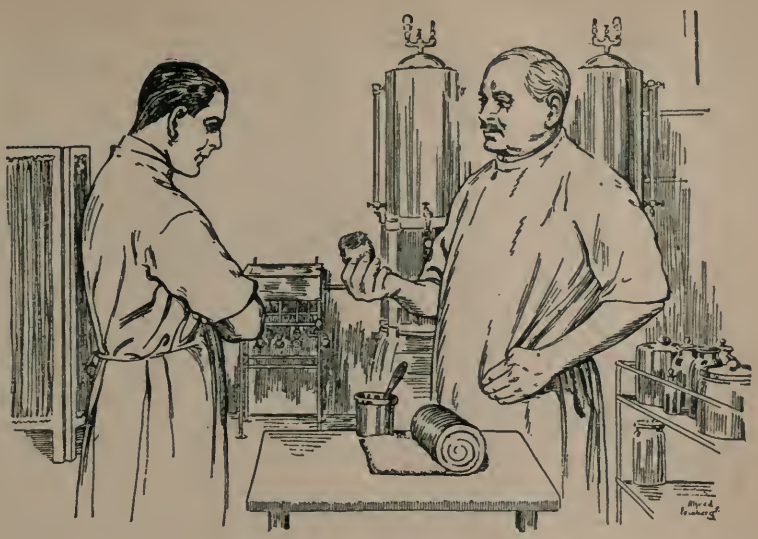
Conservative treatment has caused a decrease in maternal and fœtal mortality in private practice.

The maternal and fœtal death rates in hospitals have not shown an appreciable decline in one hundred years.

The fact that the death rate among the emergency cases (*i.e.*, those sent in by medical attendants) is over ten times that of regular applicants in the New York Lying-in Hospital is a reflection on the preliminary medical training school.

Scientific investigation of ante-natal pathology which will promote a prophylactic therapy, will lower infant mortality more than the present attempts to do so by the routine operative termination of labor.

A properly conducted pre-natal clinic combined with conservative conduct of labor is more certain to secure a decrease in the death rates than promiscuous intervention.



DR. SENIOR: "*Now, Doctor—speaking of gynecological cases, here is something you ought to know about—*"

DR. JUNIOR: "*You are not going to use Antiphlogistine in a vaginal tampon?*"

DR. SENIOR: "*Just what I am going to do, in that case of evident tubular infection, with accompanying inflammation of surrounding peritoneal tissues.*"

DR. JUNIOR: "*Now, that is a new one to me—certainly.*"

DR. SENIOR: "*And a good one, I assure you. I'll have nurse place balls of hot Antiphlogistine in one or more layers of gauze, and we will pack the vagina with this—as hot as can be borne by the patient.*"

DR. JUNIOR: "*How long do you leave the tamponage in place?*"

DR. SENIOR: "*Twelve to twenty-four hours—or until the pain and temperature have abated or the indications, shown by elimination of serum from the vagina, call for a renewal of the tamponage. You see, Antiphlogistine, being composed of non-toxic antiseptics—boric acid, oil eucalyptus, oil gaultheria, and c. p. glycerine—we have the ideal material for a vaginal tampon, with cotton. The osmotic action of Antiphlogistine begins promptly, and there is also a soothing effect from this remedy, which is far better than to resort to narcotics—except in extreme cases.*"

Under normal conditions, spontaneous labor aided by proper analgesia is safest for both the mother and the child. Inordinately applied operative interferences increase the hazards of birth.

The authorities who have fostered a peculiar method of routine interference in all cases and those who imitate them have retarded the advance in obstetrical care and are contributors to the high American mortality incident to childbirth.

It is lamentable that those who practise a routine intervention have a higher mortality than properly controlled midwives.

The proponents of operative cults have produced no evidence to show that their systems are more worthy and less risky, or that they promise a higher conservation of life than carefully watched spontaneous labor.

There are no more reasons why all parturient women should be delivered by operation than that all people should be inflicted with routine enemata or catheterization.

A medical fad should be discountenanced; precept and example founded on injudicious enthusiasm lead to many unwise procedures.

The indications for obstetrical operations demand revision; certainly they should be more clearly drawn, and limited rather than extended.

A wise conservatism in obstetrics will be more productive of ideal results than injudiciously used skill.

Obstetrical teaching is so deficient in most colleges that there should be decided and early improvement; as long as obstetrical teaching is defective obstetrical results in practice will be poor.

An obstetrical curriculum should be devoted to practical instruction on the manikin, in the class room, and in the clinic; obstetrical surgery should be a very small part of the co-ordinated whole. The proper place for the latter is in post-graduate courses.

Surgery, Gynæcology and Obstetrics.

Frequency of Abortion in Germany

Nebel (*Zentralbl. f. Gynak.,*) reports further evidence of the increased frequency in Germany, as a consequence of stringent economic conditions during and after the war of criminal abortion. This has led to the proportion of abortions

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to births reaching 1 to 2 according to figures from Hamburg, 3 to 20 in Munich, and over 4 to 5 in Berlin. Certain German medical men recently have actually recommended an abrogation, on social and eugenic grounds, of the penalties attaching to induction of abortion. Nebel's figures are derived from records made in Mayence, and show that since 1910 abortions have increased from 10 to 26 per cent. of total births; during the same period the ratio of febrile (and therefore the more probably criminal) abortions to the total number of abortions has increased from 6.5 to 24 per cent. In these as in other statistics in this connexion it must be remembered that many cases of wilfully induced abortion escape report or detection. —*British Medical Journal.*

Gastric Ulcer and Hereditary Syphilis

Pron (*Bull. et Mem. Soc. Med. des Hop. de Bucarest*), after quoting the statement of Castex of Buenos Aires that the majority of gastric and duodenal ulcers are of syphilitic origin, states that acquired syphilis is not recognized in 20 per cent. of the cases in men and in 50 per cent. of the cases in women while hereditary syphilis is overlooked in 95 per cent. He records a case of gastric ulcer in a girl, aged 15, whose father had contracted syphilis ten years before she was born. The child began to suffer from pain in the stomach about the age of 8 years. Ordinary gastric treatment by large doses of belladonna and bismuth was ineffective. Specific treatment with mercury and iodides was then adopted, and the gastric symptoms completely disappeared.—*British Medical Journal.*

Minor Signs of Cholelithiasis

Ramond, Jacquelin, and Borrien (*Bull. et Mém. Soc. Méd. des Hôp. de Paris*) described the following three signs which they have investigated during the last two years at the Hôpital Saint Antoine in Paris: (1) The xiphoid point. Tenderness over the xiphoid is hardly ever absent in cholelithiasis; as an isolated symptom it may be present if painful processes connected with the cardiac end of the stomach, emphysema, dilatation of the heart, and pericarditis; but when it is associated with a tender spot over the gall bladder this is a strong presumption in favour of a more or less latent cholelithiasis; (2) The respiratory sign. This consists in a definite diminution of the vesicular murmur at the right

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base, especially in the posterior axillary line, in the course of cholelithiasis; sometimes this area is found in the middle lobe or in the upper part of the right lung; it persists for a long period and even for months after an attack of biliary colic. (3) Reflex pain at the site of emergence of the perforating branches of the right intercostal nerves. This pain is rarely spontaneous, and is more frequently provoked by light percussion. As this sign is sometimes met with in ulcer the lesser curvature it possesses less diagnostic value than the respiratory sign.—*British Medical Journal.*

Hysterectomy in Acute Puerperal Infection (De l'hysterectomie dans l'infection puerperale aigue) G. Cotte: *Gynæc. et obst., 1921.*

In the acute types of septicæmia due to abortion, especially induced abortion, immediate hysterectomy should be done if there is danger that curettage might spread the infection. In other cases when the usual methods do not bring about any appreciable improvement the vaginal hysterectomy recommended by Faure is the method of choice.

Hysterectomy is indicated especially in those prolonged, acute types of septicæmia which so frequently result in death from secondary pyohæmia. When there are signs of severe infection with a tendency to the development of pyohæmia, repeated chills, etc., and when examination of the lochia shows colonies of streptococci, it is best to operate without delay, performing either a vaginal or an abdominal hysterectomy. The latter should be chosen when the presence of a phlebitis of the utero-ovarian veins is recognized and when the infection has passed the pelvis and become diffused toward the abdominal peritoneum, signs of peritoneal reaction being added.—*Surgery, Gynæcology and Obstetrics.*

The Treatment of Hæmorrhage in Tonsil Operations. D. McKenzie: *Brit. M. J., 1921.*

McKenzie discusses the treatment of hæmorrhage during and after operations on the tonsil. When the bleeding is from the posterior aspect of the anterior pillar he nips the raw posterior surface of the pillar with the side of a long straight pair of pressure forceps, pressing in the pillar between its jaws from in front with the forefinger of the disengaged hand. The point of the forceps being free, a ligature can be easily thrown over it.

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For MATERNITY cases it is indicated for the nausea of pregnancy, for the discomforts of pregnancy, to restore the figure after confinement and for the dragging and pressure symptoms in pelvic disorders.

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On the tonsil bed he frequently seizes the vessel with an old-fashioned pair of tongue forceps as it is easier to pass the ligature over the obtuse oval end of this instrument.

He does not favor suturing the faucial pillars or ligating the carotid.

If the bleeding points cannot be seen or secured, McKenzie favors the use of the Watson-Williams self-retaining clamp.

In concluding his article he urges that the tonsils be removed by a cervical dissection from within, and that the old rule of arresting all hæmorrhage at the time of the operation with forceps and ligatures if necessary should invariably be followed.—*Surgery, Gynæcology and Obstetrics.*

The Immediate Effects of X-Rays on the Blood Lymphocytes

About two years ago evidence was brought forward by Russ to show that a short exposure to x-rays produced in rats a great reduction of the lymphocytes circulating in the blood. This sequence is now challenged by Leitch (*Arch Radiol. and Electrotherapy*) on the ground that it is not a specific effect of the x-rays, but rather the result of a fright reaction sustained by the nervous rat on exposure to the somewhat terrifying noises incidental to the x-ray room. His conclusions are based on a series of blood counts made on eight of these animals which were submitted to the ordeal of a temporary residence in this room, some being given a small dose of x-rays, and some being protected from the rays by means of a lead screen. In every one of these rats a diminution in the lymphocyte count, varying from 15 per cent. to 69 per cent., was observed. Further examination of the blood of five patients who were undergoing x-ray treatment, none of whom had, however, received an exposure for at least one month previously, failed to demonstrate any marked fall in the lymphocytic count. Whatever may be the explanation of the decrease in the blood lymphocytes following exposure to *x* rays—and that it does occur seems to be undoubted—there are grounds for suggesting that before any far-reaching conclusions are drawn it would be advisable first of all to make a fairly complete study of the physiology of the rat—a study for which many scientific workers would be profoundly grateful.—*British Medical Journal.*

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When these facts are considered in connection with another, namely, that radium is practically indestructible—*that seventeen hundred years hence* one half of the radium owned by physicians today will still exist—you will readily realize that there is no need for anxiety regarding the immediate or future supply of radium.

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Going home the other night I saw a man lying by the road-side in a heap of snow. Thinking he might be the victim of a previous motorist, I hauled up my car to inspect him. An elderly man I found him to be, "weel pit on," asleep, and with a New Year breath-halo. After shaking him awake I asked him his name. With a pleasant smile and two hiccups he informed me that it was "Ginger Cordial!" Interested in his case, I further asked him for his address and got the reply, again mingled with hiccups, "Bostock's Menagerie!" He seemed very earnest about the matter, and at this stage accused me of having stolen his walking-stick, at the same time striking an attitude indicative of a desire for personal combat. I fortunately found his stick in the snow, gave it him, and asked where he was going. "Going West!" said he. I told him that if he lay down again he had a very good chance of getting there, as there was a hard frost. I regret to say that he looked on this as an insult, but luckily at this point another good Samaritan turned up, red-faced, aroma-diffusing—rum, I gathered—and optimistic. "Don't you worry about him, sir! He's all right. I'll see to him! Both going the same way, we are!" His statement seemed true, so I left them.

In the car again I recalled to memory how Mr. Pickwick, when troubled by the same complaint as my friend Ginger Cordial, had given his name as "Cold Punch," and thereby aroused the ire of Captain Boldwig.

But possibly, thought I, Ginger Cordial has been pulling my leg; his replies were camouflage. Then I remembered a voyage I had once made on the famous East Neuk of Fife branch of the N.B.R. from Thornton to Leuchars. I was going to Elie, and in the carriage, as that train wended its habitually slow way, was, amongst several others, a somnolent horse-couper in a severe state of intoxication. Also present was a brisk little bright-eyed inquisitive man. As the train passed station after station the little man got anxious, and, addressing us *en masse* said, with an eye on the horse-couper, "He'll be missing his stop!" Then, shaking the dealer, he asked, "Whaur are ye gaun tae?" Waking with a snort his victim said, angrily, "Coupar-Angus," and relapsed into slumber. "Mercy me," said the little man, "he'll never get there the nicht—no' possible ava'!" When the philanthropist

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had got out at the next station the "couper" slowly sat up glared around at us, and said portentously, "I'm gaun to Pittenweem; but it disna dae to tell every———fool your business!"

And recollecting all this I was thereupon saddened by the reflection that even then, perhaps, Ginger Cordial was saying things like that to his friend the red-faced gentleman!"—*Caledonia Medical Journal.*

Abdominal Arterio-Sclerosis

Martinez (*Paris Méd.*) records a fatal case in an alcholic sailor aged 30, which he mistook for acute peritonitis due to perforation of a gastric ulcer. He considers that abdominal arterio-sclerosis with obliteration of the mesenteric vessels has received litle attention. The etiolgy is that of arterio-sclerosis in general, atheroma of the mesenteric arteries usually coinciding with chronic lesions of the aorta and the rest of the arterial system in patients above the age of 50. Obliteration of the mesenteric vessels may be due to thrombosis following obliterative endarteritis or to emboli detached from chronic aortic or valvular lesions. The symptoms of intestinal arterio-sclerosis are very vague at the onset. The condition is usually manifested by redness of the face during digestion, abdominal pain, meteorism, somnolence after meals, and constipation. After a varying time the arterio-sclerosis becomes more pronounced, and the picture is completed by the occurrence of absolutely typical attacks of severe pain lasting for some minutes, and recurring at intervals of hours, weeks, or months. Sometimes the constipation is followed by diarrhœa and abundant muco-membranous discharge. Three or four days later symptoms of intestinal obstruction appear. The prognosis of abdominal arterio-sclerosis is very grave, the mortality varying from 95 to 100 per cent. Treatment consists in the institution of a regimen similar to that for arterio-sclerosis—more rest, small meals, careful massage of the abdomen, and the administration of iodides in small doses.—*British Medical Journal.*

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Original Communications

Early Influences Bearing on a Great Career†

By Norman B. Gwyn, M.D., Toronto.

Knowing the man, his character, his methods and his teachings, it was safe to assume some artistic inheritance, and certainly some impelling, inspiring influences; a conventional propriety precludes my doing more than touch upon the inheritances, but upon the influences, and upon the men who so surely shaped a destiny, one must insistently dwell, for they were of Toronto, of your own city, and stood as god-parents to a birth of science in this then far corner of the world.

Into the annals of an evenly minded family, bred to the sea and commerce, comes one hundred years ago, the disturbing detail of a son interested in medicine, poetry, and natural history; "why can't he earn an honest living at sea". "Frittering his life away" are plaints from the letters of a puzzled father; Edward Osler, the uncle of Sir William, appearing in this light to his family, was developing some unrecognized inheritance; the detail may be conveniently closed with Edward Osler's letter to Sir William's father—"The proofs of my paper for the Royal Society have arrived, the plates are excellent"; * one has but little difficulty in recognizing this inherited strain in the Osler of the sciences.

As to the other qualities of inheritance, may one be allowed to state that Sir William was the son of a man, who, as the result of his convictions, left the navy after fourteen years of

†One of the addresses given at the Osler evening, the Academy of Medicine, Toronto, April 4th, 1922.

*Edward Osler's publications for the Royal Society.

service, entered Cambridge, and in his thirty-second year began his missionary career in the little settlement of Bond Head to the north of us, with a parish of a thousand square miles. "Into the best of all environment, a country parsonage," (Sir William's own words) William Osler was born. One phase of this life is all important, the country parsonage was in 1837 one of the earliest divinity schools in this district—teaching, and the teachings of one of the most self-sacrificing of the professions was the atmosphere of Sir William's early existence.

Forbidden it may be to dwell upon the intimate questions of a family inheritance but into the influences later bearing upon Sir William's life, romance itself is written, and reflection thereupon becomes imperative if one hopes to comprehend or explain his subsequent career.

On the fly leaf of his textbook is the simple dedication, "To the memory of my teachers—William Arthur Johnson, priest of the parish of Weston, James Bovell of the Toronto School of Medicine and of the university of Trinity College, Robert Palmer Howard, dean of the medical faculty, professor of medicine, McGill, Montreal." To most of us I fancy this represents but a polite recognition of three men under whom he may have worked, to anyone, however, who may have had shown to him something of the early days of Sir William's life, this short dedication epitomizes a chapter of environment and influences, the main paragraphs of which were a wonderful demonstration of truth, simplicity and earnestness.

Seventeen years before Sir William's birth, there had landed on the Lake Erie shore near Dunnville, Colonel Johnson, ex-aide to the Duke of Wellington, with him a son, not yet eighteen, a cavalry officer, leaning already, however, towards divinity, an enthusiastic student of natural history, and an expert with the microscope you see before you. ** In his later years, a divine of the highest type, a compelling yet lovable character, we see him the head of the little school at Weston, adored by his boys and able in turn to interest them in the pursuit of his beloved natural history. By the crudest accident, apparently, William Ostler was directed to the Trinity College school, here in its infancy, to acquire perfection (as he humorously says) in music and dancing; he found instead, an inspiring teacher, a lover of all that was best in life, a master

**The cabinet carved by W. A. Johnson and presented to the Academy by the family of the late Arthur Jukes Johnson, contains one of the original microscopes used by Johnson Sr. and Osler.

and a friend. What the actual possibilities of learning might be, I leave you to judge; the cabinet before you, hand carved by Johnson himself, contains nearly 1,500 specimens of his own collecting; the beginnings of Canadian sciences lie here in a not too timid infancy, for Johnson not only taught but published his teachings; at this table Sir William worked; from it, while yet a youth of eighteen, a student in the Toronto School of Medicine, went forth his first publication—fit and concrete tribute to Johnson's power of inspiration.

Worker with Johnson in the sciences and in the realms of theological and philosophical thought, physician to the boys at the school, was another character cast in the Johnson mold—the quiet-thinking, saint-like Bovell; physician, naturalist, professor of natural theology, he was again that rare type of teacher who could recognize a precious intellectual gift, and his duty thereunto. Osler, when he left Weston for Trinity, to begin his studies in divinity, became at once Bovell's companion and intimate, although the association with Johnson was never severed; together the three roamed the countryside in their zoological quests, the teaching, the training, the inspiration received was that which a loved disciple would get from affectionate, far-seeing masters, and be it remembered that Bovell, like Johnson, had exceptional gifts and qualities; practitioner, consultant, active in teaching, he yet found time to contribute voluminously to both medicine and theology; throughout his contributions one sees always the belief that the creations of the Lord must be taken as proof of His existence, and in the end, his many medical activities, his positions as teacher in pathology and physiology in the Toronto school, were given up for a life in the church; Osler was his particular and intimate student, assisting him, and, even at his young age, pushed forward by his teacher into the giving of classes and demonstrations. To illustrate the range of Bovell's activities, his "Natural Theology" must suffice; *** nothing quite so ambitious in the way of a scientific publication had as yet appeared in Canada; to Osler thus was given later the added advantage of seeing the machinery of authorship in operation.

The influence of these two great characters helped make the Osler that the medical profession is honoring this evening; i is probable that nowhere in the world at that time were there two such kindly yet compelling teachers and guides; polished, classical, in touch with the best thought of the day,

***Outlines of Natural Theology—for Canadian students, quarto 570 pages.

their imprint on the mind of their young pupil was far-reaching and always for the best; as a result of it he left Toronto, himself a formed character, a man far ahead of his years; with all due deference to the great minds and men he met after leaving us, the great awakening had taken place; Dr. Wishart's sketch, the volume I pass on to you, **** show decisively, that, in a few short years, amongst the elect of the continent, far from being merely in receipt of influences, he was already holding high, the clear, strong torch of Johnson and Bovell.

Cases of Infected Knee Joint Treated by Incision, Drainage, and Movement. *Lancet, 1921.* By P. Weatherbe.

When a diagnosis of septic knee joint is made, treatment should be begun at the earliest possible moment. This should consist of free opening of the joint by lateral incisions, 4 to 6 in. long, on either side of the patella followed by thorough irrigation, the breaking down of all adhesions, manipulation by full flexion and extension, the introduction of several rubber drainage tubes, the application of wet boric lint covered with oiled silk, and the establishment of continuous drainage of the joint by capillary action. The dressing should be changed once a day with removal of the tubes and irrigation, full flexion, and extension of the joint.

This treatment should be repeated daily until the wounds are healed. Failure will occur if any of the details are not observed; that is, if the incisions are not large enough, if the joint is not fully flexed each day, or if the dressings are not kept wet or are discontinued before the wound has thoroughly healed. The changing of dressings and the movement of the joint are comparatively painless. This method of treating septic knee joints apparently gives the best prognosis as regards both life and function.—*Surgery, Gynæcology and Obstetrics.*

****Volume of the Montreal General Hospital reports 1880, edited by Osler—the first volume of this sort to be issued by any Canadian institution.

Osler from the Point of View of a House Physician*

Harold C. Parsons, M.A., M.D., M.R.C.P., London.

As one who had the good fortune to serve as house physician under Dr. William Osler, may I attempt—however imperfectly—to give some idea of his influence upon the group of young men at Johns Hopkins Hospital at that time.

He was well fitted to guide the destinies of the young by his personality, his enthusiasm, his breadth of vision, the nature of his teaching, and his high ideals, medical and otherwise.

Many a man with a more or less crude conception of his profession, of its finer side, and its responsibilities, by daily contact with Dr. Osler soon found medicine raised from a money making enterprise to a high and noble calling.

He had a most attractive personality.

His manner was always natural.

His greeting was genuine, and cordial, never effusive, and what he said he meant.

A word of encouragement was ever ready, which made a strong appeal to the young man, doubtfully setting out on his career.

Being very approachable, his advice was eagerly sought, and that advice was sound and good, and directed toward good work and accomplishment rather than gain. In him there was a peculiar absence of the mercenary.

Consideration for others was shown in various ways. Consideration for the feelings of those working under him was very evident, and it was a virtue so rare that it is worth emphasizing. In the same way, consideration for those less favoured in the opportunities of life made a deep impression upon us. You know how prone we are to criticize the man who first saw a case, and perhaps failed to realize its true nature,—which on its arrival at the clinic is much more clear. He would say—"Don't be too hard on the man outside." "The man who saw this case first had all the worries." It showed his breadth of feeling and the range of knowledge he possessed, and represented a quality and quantity of mercy that we may all do well to emulate.

*Read at the Stated Meeting of the Academy of Medicine, Toronto, April, 1922.

His plea for unity, peace and concord in the professica was not merely a written word, but with him a way of life that he lived and taught every day.

His kindness and consideration were nowhere more in evidence than in his dealings with his hospital patients and his manner toward them.

He had a delightful sense of humour, always a saving grace in a physician.

Of his teaching it may be said that it was simple and direct in the extreme, there were no frills and no spoon-feeding. His observation was very acute. The summing of facts, and his arguments were almost legal, and he presented the essential points of a case, or a condition, under a few clear cut headings that made a lasting impression. Clinical observation, properly based, was always made the outstanding point. The accessory methods of examination were put in their proper place,—and kept there.

His sense of proportion was strong.

In a most attractive and instructive way he combined medicine and pathology in his teaching. In his ward work the microscope was in almost constant use at the bedside. Clinical microscopy in his hands was a revelation.

Our visits with him to the autopsy room were of the greatest interest; his comparison of the clinical and pathological findings were well made. He dwelt much more, however; upon what had been missed than upon what had been found. And in so doing he lived up to what he wrote that "While the autopsy is of special value in training physicians in diagnosis, it also enables him to correct his mistakes and, if he reads his lesson aright, it may serve to keep him humble."

It was an evidence of his modesty and honesty, of his conception of the possibility of error in a field so great as internal medicine, and a sense of one's limitations. It made a profound impression upon all of us.

Where special lines of investigation were called for, he had the happy knack of interesting one of us to follow them up, pointing the way, and out of his extraordinary knowledge of the literature putting us in touch with it, and how to proceed. Moreover, he was generous in his commendation for work well done, and he had such original work published in suitable journals, and each man is given credit for his work in the succeeding editions of his treatise on medicine.

Work never appeared to be work with him, it was pleasure. He accomplished a great deal, as his contributions to the literature show, in addition to an otherwise busy life. Perhaps it was that he had things so well organized, and everybody was doing his part ; yet nobody even heard organization mentioned.

He gave one the impression of being very happy in his work, possibly because everything was so congenial. From my own observation, if congenial, it was of his own making. There was an atmosphere of trust and confidence which he created, and which dominated our hospital life, which is the most cherished memory of those who had the good fortune to come under its influence.

Haemolytic Streptococci and Obstetric Prognosis

Kirstein (*Arch. f. Gynak.*) investigated the relation between the incidence of *post-partum* infections and complications and the presence of haemolytic organisms in cultures made from the vagina during and after labour. He classified cases of puerperal fever in respect of three increasing degrees of severity, and found that a greatly increased percentage of "class 3" (the most curious cases) showed themselves in those in whom cultures gave *Streptococcus haemolyticus.* Severe complications, such as adnexal inflammation, were more frequent in the cases associated with haemolytic organisms. One in ten only of the class 3 patients were not infected with these cocci. Obstetric operations *intra partum* were less well tolerated by the patients infected with haemolytic organisms, twice as many in these as in other patients showing subsequent pyrexia. Of fifty-three patients in whom cultures at parturition showed haemolytic streptococci, 92 per cent. subsequently became febrile. The writer concludes that in cases known to be infected with haemolytic streptococci it is inadvisable to perform primary suture of perineal tears, and that prophylactic drainage of the uterus by means of a tube introduced *post-partum* may be usefully undertaken.—*British Medical Journal.*

Osler from the Standpoint of the Undergraduate*

By D. J. Gibb Wishart, B.A., M.D., C.M., Toronto.

It was in the first days of the month of October of the year 1882 that I entered the office of the Registrar of the Medical Faculty in McGill University, to enroll myself as a student in Medicine, and met the then Registrar—Dr. Osler. As was his custom he speedily placed me at my ease, by asking a few questions designed to enable him to place himself *en rapport* with the new student. Why had I entered McGill? Where was my home? Did I know . . . and . . . , who lived there or thereabout?

We met again on the street some few weeks later, when to my utter amazement he saluted me by name, and asked at once if I had heard any news of the various individuals about whom he had enquired on the previous occasion.

I was then a graduate of Arts in the University of Toronto, and had passed through the hands of the late Judge Falconbridge, and Prof. Baker in their capacities as Registrars, and was thus able to claim that I knew something of the limitations of that office. This was a new genus—a Registrar that knew his students by name at the second meeting, a Registrar that took an interest in you, and desired your friendship.

I at once felt that I had found a friend, but put it down to the fact that I was a nephew to Dr. Stevenson, one of the four who founded the Medical Faculty of McGill, and to my being a B.A. of another University from which it might be well to attract students.

I talked to my classmates, and found that practically every one of them felt as I did to Osler—considered him as a personal friend, had been placed upon some special relationship to him, was bound to him by some link which was purely personal.

This was the key note. Osler forged this personal link with every student individually, and this link was never broken, though the years might be many which intervened between their meetings. I have been closely in touch with the students of two faculties of medicine for the past forty years, and I never knew a man who possessed this capacity for intimacy with his students in any degree measuring up to that possessed by Osler. Once Osler shook his hand, the student had a friend for life and knew it.

In addition to his duty as Registrar of the Faculty, Osler was Professor of the Institutes of Medicine—now known as

* Read before the Academy of Medicine, Toronto, April 4th, 1922.

Physiology—and delivered, as was the custom of the time, one hundred lectures each session, each student being required to repeat the course, and pass two examinations. When I entered as a student he had been a teacher in the Faculty for eight years.

To any one who merely dropped in for one lecture, Osler's delivery might be described as stumbling, even stuttering, but to us students he was delightfully clear, distinct and convincing. We were able to take down notes *in extenso*. In the Histological Laboratory, of which he also had charge, his manner with the students was stimulating and we came to each period with fresh interest, because we were led on, by the concluding words of the previous demonstration, to expect a fresh development of the plot, and we were kept keyed up throughout.

To encourage me to study, later on he invited me to his office, and offered the loan of works on Physiology published in French—again the personal touch, the welding of the link. That I spent the next holiday collecting and shipping live frogs for Osler was a personal testimony to his effect upon me, and I have never ceased to give thanks that I reached McGill in time to spend two years under the guidance of one who was at once the friend and inspiration of the undergraduate in medicine.

Daughter—"Oh but men are so hideously lacking in self-control."

Mother—"Don't get annoyed about it, dear. If they weren't, most girls would die old maids."

Getting No Better Fast

The old gardener's wife had been very ill, and on seeing him I asked him about her.

"Oh, ma'am," the old man replied sorrowfully, "the doctor don't give us no encouragement either way."—*The Windsor Magazine.*

Osler as an Incentive*

By C. D. Parfitt, M.D.C.M., Gravenhurst, Ontario.

On this great occasion in the history of the Academy, in memory of a Master of Medicine who has left us, I am grateful for the privilege of putting into words something of my debt to Sir William Osler. The stimulus of his magnetic personality to me must be typical of the spell he had for many others. I had the good fortune of knowing Dr. Osler as a teacher for nearly two years, and for twenty more in being honoured by his friendship, and encouraged by his kindly remembrance. I hope to show what an incentive he was to effort, how infectious was his enthusiasm, and how he inspired a love for work for its own sake.

Fortunate was the student whose clinical work began, as did mine, with the appearance of the famous textbook, which meant the relegation of all other authors to the seldom-used shelves. This book became at once a great incentive to the student. The stress upon pathology and the clinical laboratory incited to deeper interest in these, then relatively undeveloped branches. A new vocabulary opened vistas, stimulated imagination, and quickened inquiry. The terse pointed phrases, and occasional epigrams, lent themselves to memory and became for the student the Beatitudes of Medicine. Later, in conservative London, I found the textbook quoted freely by the younger group of teachers of whom the lamented Alfredo Antunes Kanthack was a brilliant example. Through him I met Dr. William Sidney Thayer, then Osler's resident physician at Johns Hopkins Hospital, and late in 1897, on Dr. Thayer's suggestion, I visited Baltimore.

The address on "Internal Medicine as a Vocation" had just been published. While treating the subject so broadly, this essay was yet so personal in application that it seemed to have been written especially for one who has spoken here this evening and had just chosen that field. It was a chart for the bold, on a voyage of high adventure, Osler himself the supreme example of the master mariner.

To me he was a surprise, a revelation. His charm was instant and extraordinary. Combined with his remarkable intellectual qualities, his amazing culture, and his great

*Read before the Stated Meeting, Academy of Medicine, Toronto, April 4th, 1922.

experience, this essence of personality made him the Master, worthy of the most devoted service. This feeling the Chief inspired in all his followers.

On leaving at the end of a brief fortnight, Dr. Osler's approachableness emboldened me to ask to be allowed to work under him. I expected disappointment, but this was tempered by the kindness of the refusal, and by the silent sympathy of Mrs. Osler, who, when I called to say good-bye, invited me into his reprint room and told me to take a copy of whatever I wished. A fortnight later I was surprised and delighted by a letter in which he offered the opportunity to do research work on tuberculosis, made possible by a special fund, in part contributed by two ladies whom he had lately interested. I have since learned that he was, himself, probably, the main contributor.

Early in 1898 I returned with ardour to try to carry out his wishes. His keen mind, teeming with ideas, ever found some way to satisfy its curiosity or to develop some constructive effort. He saw a great opportunity in a field in which, in North America, there were as yet few workers. The plotting of lung blocks by Biggs in New York City had suggested the segregation and more intensive study of dispensary cases, while in pathology he wished to verify the recent work of Le Damany on pleuritic effusions. He also desired that the histories relating to serous-membrane tuberculosis should be analyzed. He suggested that shortly some lectures on pleurisy should be given, a special library collected, and a society formed, called after Laennec, to stimulate the study of tuberculosis.

The dispensary cases were assigned to me and also a room in which to develop a laboratory. Almost at once Osler sent me to visit Trudeau for a few days in his laboratory at Saranac Lake, in order to learn something of the peculiar difficulties in my path. Soon he took me in tow to the Surgeon-General's library at Washington to look up some literature, along with McCrae, who showed me the ropes. Thus did he make the opportunity, give lavishly of encouragement and counsel, instil enthusiasm, and create incentive to work, not only for its own sake, but for his sake.

While at this work I frequently had the chance of following Osler on his ward rounds and twice during Thomas McCrae's absences abroad, was given his place on the resident staff. Here one might

> "—Watch
> The Master work, and catch
> Hints of the proper craft."

This to me was the greater opportunity and diverted me from my research. What golden days of absorbing work and fine companionship! Most of the men on the house staff have since become distinguished. Futcher was then resident physician.

The daily advent of the Chief was the great event. An example of punctuality, he was ever before the hour bringing the freshness of the morning with him. On his breezy entry, with quick, springing step and gay manner, our world brightened. A distinguished gentleman, he radiated a dignity enhanced by his very evasion of it. On his way to the wards, linking some companion affectionately by the arm, he cheered every one he met by his friendly word, nod, or wave of hand.

At the bedside with his group of staff and students, he made a striking picture. All faces were expectant. The patient was at once put at ease by some sympathetic enquiry, often with a humorous turn. Osler's thorough methods of investigation and teaching need no description here. His arrangement of facts usually made the diagnosis self-evident. Then came the easy intimate talk upon the case in simple, exquisite English. There was no suggestion of *tour de force,* nor of climax, yet every word was pointed and every sentence worth remembering, often driven home by a delightful humour. Just at first the low, modulated voice was slightly hesitating and tremulous, revealing a little human nervousness even before that worshipping group. Medicine, as revealed by him, was seen to be the pinnacle of a broad, underlying structure of science and culture, to which all sources of information contributed something of value. His talks were filled with narrations of incident of personal or historical interest and with frequent references to old teachers, to the fathers of medicine of all periods, to obscure or long-forgotten men, lifting them again to momentary fame, and to contemporaries of all countries. The English classics were often quoted and the glory of the past was so illuminated that some knowledge of it became a necessity. Consequently, the "Golden Sayings," the "Meditations," and the "Religio Medici," were as readily found in the hospital bookstore as the newest text-books. His lamp shone with equal brilliance in the ward, theatre or dispensary clinic, postmortem room and library. Withal he was most modest.

Enthusiasm, characteristic and infectious, was carried into all his interests. It was, indeed, the dominant note of the hospital. He saw familiar things with a fresh eye and found something new at which to marvel where others saw the ordin-

ary. This and his broad sympathy were perhaps his most striking qualities. He understood desires, dreams, difficulties, and was always accessible as a counsellor or confessor. He gave encouragement not only by words but unconsciously. While chary of giving advice he had the happy knack of simplifying the problem for one's own decision. Believing in one's rightness of intent he was always kind, tolerant and lenient to all.

In December, 1899, I carried with me as a parting gift "Grave's Clinical Medicine." Both in class and conversation Osler tried unceasingly to provoke an interest in the builders of English Medicine, and this gift bore with it its own behest. Within the year I learned from personal experience his patients' point of view—the faith he inspired, the security in his knowledge, the hope revived, the tonic of his words and with them the spur to future effort. Then throughout twenty years came the occasional, short, stimulating letters, ever interested, rejoicing or concerned as one's fortune varied, granting brief glimpses of his own joys and sorrows. When letters failed, some charming token of remembrance came, Sydenham, Wordsworth, Huxley, "Aequanimitas," always rousing to better effort. To be thus held in remembrance in his busy life, one only of very many, was wonderful.

What delight those brief notes gave! One just before leaving for Oxford is typical—"Let me know at any time if I can be of any solace to you. I hope you are getting at something in the way of literature." The last word, August 24th, 1919, from Jersey—"I hope you got my birthday greeting mailed June 26th, in the shape of an address before the Classical Association. Many copies, I fear, have gone astray. Let me know. We are enjoying a six weeks' rest here. The last few years have been a heavy strain . . . ." P.S. "I often think of you and your rare gifts as father confessor in Ward C!"

Any attempt to tell or write of the influence of Sir William Osler, to try to recreate in words the magic stimulus which poured from him, is like trying to make sunshine and dew. His was a rare leaven, subtle, permeating all who came into contact with him; his radiant energy created opportunity, inflamed ambition, provoked endeavour, spurred to achievement; his torch, at which so many torches were lighted, with increasing brilliance lit up an ever widening circle. He will shine "Down the arches of the years" as the greatest of all physicians, a lover of mankind, especially beloved and reverenced by his pupils, who feel with Joseph H. Pratt that "We shall never see his like again."

The Academy's Debt and Tribute to Sir William Osler *

H. B. Anderson, M.D.C.M., Toronto.

One of the cherished assets of a profession consists in the lives of its great men. The contributions of a man's genius and their effect on his own day and generation are not a full measure of the debt due to his memory. The quickening though unseen influence of his work, his personality and teaching, projected through generations of followers, inciting them to effort and achievement, far outweigh temporary benefits, as the potentialities of a mighty stream exceed the energy of its passing current. For this reason it has been a custom in all civilized countries to erect memorials to those whose lives are especially worthy of emulation, not alone in honour of their achievements but to perpetuate their influence.

In going over the old files of the *Canada Lancet* recently, I came across the name, William Osler, among the candidates passing the primary examination in medicine at Trinity College, April, 1871. The following year he graduated at McGill at the age of twenty-three. He then spent two years in Europe during that epoch-making period in medical history when Virchow, Pasteur, Lister and a group of great physiologists and clinicians and their pupils, were laying anew the foundations of medicine on the basis of the natural sciences. He returned to Montreal in 1874 with an excellent training, filled with ambition and in touch with the leading medical authorities in Great Britain and on the continent. He was therefore well prepared to regard medicine from the new viewpoint and to take a position in the forefront of a movement which was destined to revolutionize teaching and practice on this continent.

He was appointed professor of the Institutes of Medicine (which included Physiology, Histology and Pathological Anatomy) at McGill, and shortly after professor of Helminthology in the Veterinary school (for which institution he suggested the name "School of Comparative Medicine"), and physician to the Smallpox Hospital. These appointments gave him opportunities which he grasped with characteristic energy. In 1877 he published the first pathological report from a Canadian hospital, gratefully inscribed, "To my Teacher, Dr. James Bovell, Emeritus Professor of Pathology in the Trinity Medical School,

* Read before Stated Meeting, Academy of Medicine, April 4th, 1922.

Toronto." His numerous important papers on clinical and pathological subjects in the succeeding ten years, which require over eighteen pages of the "Osler Memorial Number" of the *Canadian Medical Association Journal* to list them, bear witness to his wonderful industry and prolific genius.

From the beginning of his career he took a keen interest in Medical Societies. In 1879 at the London meeting of the Canadian Medical Association, in lieu of a paper he gave a practical demonstration on the anatomy of the brain, hardened by a new method to look like a wax model, and presented a number of water-color illustrations of pathological specimens. In 1880 his name appears as Examiner in Physiology and Comparative Anatomy in the University of Toronto. For a time he was Secretary of the Canadian Medical Association and was elected President in 1885. Within a single decade his reputation had become so well established that on the death of Dr. Wm. Pepper he was chosen as the man best fitted to be his successor in the professorship of medicine in the University of Pennsylvania. The purely Canadian part of his career had come to an end but not his interest in or intimacy with the Canadian profession, which he maintained throughout his eventful life in ways which the time at one's disposal is too short even to touch upon.

In an address to the eleventh annual meeting of the Ontario Medical Library Association in 1898, he advocated the fusion of the medical societies of Toronto with the library as its nucleus and having a suitable habitation in a central locality which he suggested be called The Medical Chambers. He was a frequent contributor of rare books to our library, including the first of our incunabula. He established the Bovell collection on physiology, pathology and medicine in memory of his old teacher. He selected the fine assortment of medical engravings in the Council room, presented by our esteemed benefactor, Sir Edmund Osler. Above all he was ever ready with counsel and encouragement, expressed in characteristic terms: "bleed the brethren freely," he said, and "have the surgeons consecrate an occasional fat fee to the purchase of rare books." In these and many other ways he showed his continued interest in the profession of the city where the foundation of his medical education was laid, but most of all in his unvarying kindness to our students and physicians.

It is difficult for those who came under the spell of Sir William Osler's personality to speak of him from the fullness of the heart without the fear that in doing justice to a man of

his infinite variety they lay themselves open to the imputation of exaggeration, an excess which would have been far from pleasing to one of his critical judgment. If we consider, however, the activities and achievements of his career as scientist, physician, teacher, author and man of letters, blended in a personality so sane and human, so magnetic and lovable, one is safe in expressing the common judgment that he was not alone an outstanding figure but the greatest individual influence in English-speaking medicine of our day. It would therefore be strange indeed if the profession of his own city should neglect to pay fitting tribute to the memory of one whom the medical world has acclaimed a master.

It is important for us as Canadians, fellow-citizens and members of the medical profession to consider what the name "Osler Hall" and the portrait presented to-night, will represent in the way of inspiration to the Fellows of the Academy of Medicine. In the first place they will show the veneration we have for our great men and so help to foster an atmosphere appropriate to the meeting-place of the medical profession of our city. This is an asset, the value of which the medical centres of the old world have been more careful to preserve than we have. Their halls have become hallowed by the memories of distinguished brethren and shrines of inspiration to our profession.

As an association composed largely of practitioners we revere the memory of one who, though never engaged in general practice himself, had a sympathetic understanding of the ordinary doctor, bore generous testimony to his merits, was charitable to his failings and ever ready to encourage him in his daily work. In *Aequanimitas* he quotes, without comment, Robert Louis Stevenson's appreciation of the doctor " as the flower of our civilization, (such as it is) and when that stage of man is done with and only to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race."

Sir William Osler was free from the pose of intellectual superiority and the aloofness which too often estranges the academic man from his toilsome and more isolated brother in practice. He had the rare qualities of candor and forcefulness, devoid of offence. Chauvinism he abhorred. In an address before leaving to take up his work at Oxford, he summed up his personal ideals—to do the day's work and not bother about to-morrow; to act the golden rule toward his professional brethren and the patients committed to his care; and to cultivate such a

spirit of equanimity as would enable him to bear success with humility, the affection of his friends without pride, and to be ready when the day of sorrow and grief came, to meet it with courage befitting a man. His friends and colleagues know well how fully he lived up to his ideals.

This hall and portrait should recall that, while a mere youth, William Osler showed unmistakable evidence of a natural bent for scientific pursuits and a capacity for work which determined his future success in medicine. It is for our encouragement that there appears so little of happy chance or mere accident about his success. It was the natural and logical result of a course deliberately chosen and pursued with life-long devotion. With characteristic generosity he attributed all his success to the influence of his early teachers, and no doubt his association with them was the auspicious meeting of the man and the opportunity. If they scattered the seed, assuredly it was on fertile ground. While still an undergraduate of Trinity College, we cannot overlook how eagerly he undertook and how thoroughly he carried out his first scientific research—the microscopic investigation of *Canadian Diatomaceæ*. Then, as later in life, evidently work was the "master word." This early research, moreover, bears witness to a quality which he had in common with all the great masters in medicine from Hippocrates onward—he dealt with first hand observation of material—not with theories and abstractions. This quality was further exemplified in his investigations on the blood during his post-graduate course in London, and later still in his withstanding the allurements of practice to gain time for work in the laboratories, the wards and autopsy rooms in Montreal. Acute observation, the noting of results, the correlation of symptoms and physical signs with laboratory and autopsy findings, the arrangement of facts in their proper sequence, illuminated by reference to the best literature on the subject, were the successive steps leading him to conclusions so reasonable, as to be accepted as a matter of course. Each step, however, showed the consummate art of the master craftsman.

Those who have had the privilege of seeing him in his library, with its incunabula, illuminated editions, autograph copies and other treasures, could never suggest that he undervalued the importance of books, but books were the servant to his purpose, not the master enslaving the mind by authority and tradition. As he expressed it himself, "to study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients, is not to go to sea at all."

In another of his addresses, he says, "For the general practitioner a well used library is one of the few correctives of the premature senility which is apt to overtake him . . . It is astonishing with how little reading a doctor can practise medicine, but it is not astonishing how badly he may do it."

His catholicity of spirit, his freedom from the trammels of institutions, which anchor most men, is shown in his leaving Trinity for Toronto, and Toronto for McGill, as later he departed from the custom of Canadian medical men of the time, by leaving London to go to Berlin and thence to Vienna to complete his first course of postgraduate study. In this way and without loss of time he broadened his associations, gained a better knowledge of languages, a more intimate acquaintance with the leaders of medical thought and practice and a fuller understanding of the world in general. In this youthful *wanderlust* is seen a manifestation of the spirit which in later life induced him to break the ties which bound him as a professor at McGill to go to the University of Pennsylvania, thence to Johns Hopkins, and finally to accept the crown of his academic career as Regius Professor of Medicine at Oxford. He apparently grasped intuitively an advantage the value of which has since been generally recognized. Like his life-long mentor, Sir Thomas Browne, he could have said "I am of a constitution so general that it consorts and sympathizeth with all things . . all places, all airs make unto me one country." In a word, he was a citizen of the commonwealth of medicine.

Many have marvelled at the amount of work he accomplished but the secret is suggested by his well-thought-out plans for the conservation of his time and energy. He counselled against the fatal habit of diffuseness. His spirit of work might be epitomized in the homely wit of Poor Richard, "diligence is the mother of good luck" and "one to-day is worth two to-morrows."

I have endeavored, of necessity briefly and imperfectly, to show that the later developments of Sir William Osler's career, which, in a larger field, established his world-wide fame as clinician and author, were the natural evolution of qualities apparent in his early work in Canada.

It will be noted throughout, that observation and investigations in physiology, comparative anatomy, pathology and morbid anatomy, served as the solid foundation for his clinical work, but the superstructure was builded with equal patience and care. The inquirer is never perplexed in accounting for Sir William Osler's fame as a physician.

Who can trace with precision or measure with accuracy the various currents, hereditary and environmental, which contribute to the making of a great man? The benison of such lives should perhaps be accepted without the futile effort of imitation. Someone has pointed out the danger there is in developing too slavishly the mind of a disciple: it tends to cramp the imagination, to destroy initiative and thus produce a mere mimicry of greatness. We may pay our masters a truer compliment than by sinking our individuality into theirs; we can allow their individuality to color, strengthen and develop our own. In this way the life of Sir William Osler is replete with ideals, counsels and example, to direct and encourage the Fellows of the Academy in their daily work and Osler Hall will be a perpetual reminder of them.

The Diagnosis of Intestinal Tuberculosis

Loll (*Wien. klin. Woch.*) gives the results of numerous examinations of the faeces, with respect to the value of the detection of occult blood and of tubercle bacilli in the diagnosis of intestinal tuberculosis. He found that in all cases of tuberculous ulceration of the intestines occult blood could be detected in the faeces by the benzidin test, after diet which had been free from any food containing haemoglobin for six or seven days. From the results of his observations he concludes that examination of the faeces for tubercle bacilli, as an indication of intestinal tuberculosis, is useless, since the tubercle bacilli found in the faeces are chiefly due to the patient swallowing his own sputum, which contained tubercle bacilli. In cases of extensive tuberculosis of the intestines, when the pulmonary disease has not caused the sputum to contain tubercle bacilli in large numbers, then the faeces have contained few tubercle bacilli, or generally none at all. When the expectoration has been free from tubercle bacilli the faeces have been found also free from tubercle bacilli, although extensive intestinal tuberculosis has been present.—*British Medical Journal.*

Arteriosclerosis; its Pathology and Pathogenesis*

By James Miller, M.D., Queen's University.

In a recent review of this subject by MacCallum (Physiological Reviews, Vol. II, No. 1, 1922) the statement is made "that most of what is written" (on the subject of arteriosclerosis) "has only the value of opinion and that we are extraordinarily ignorant with respect to this common affection. Diametrically opposite views are put forward as to the causes, the anatomical nature and effects of arteriosclerosis, many names of different significance are proposed for it and withal there has been no unanimity of opinion as to what should be included under the heading and what excluded." This statement of the condition of affairs is not overdrawn. To put it plainly we know very little about the subject, we have, as a profession, studied it in a somewhat desultory fashion and our classification and nomenclature is, even for a medical one, extraordinarily confused and unsatisfactory. In extenuation of this state of affairs it must be said that there is possibly no subject of equal difficulty of investigation. The cardiovascular system is one organ and should be studied as a whole. But how impossible it is to do this. The spleen, the liver and lungs are compact organs and can be isolated and studied by themselves. But the cardiovascular system, like the nervous system, ramifies into all the organs and parts of the body. The vessels moreover differ in structure in the different organs, and it is practically impossible to retain the conditions obtaining during life in any of the excised samples which we study after death. From the very foundation upwards one can suggest likely lines for research, if only the investigations were not so complicated.

As MacCallum states, the current descriptions of the histological structure of the arteries leaves much to be desired. I would add that even the gross anatomy is little known. For example, I have asked a number of anatomists regarding the blood supply of the aorta and they have all responded that little or nothing is known regarding this, which in any other organ would be regarded as a matter of profound and fundamental importance. I have worked at the question and have traced one constant source of blood supply for the aortic arch. Professor Whitnall, of McGill, to whom I wrote some time ago, very kindly asked a former pupil of mine, Dr. Maclaren Thompson,

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to work out the vessels with their distribution in a number of subjects. The following is the result communicated to me by letter:

Blood supply of the thoracic aorta.

1. A branch arising from the root of one of the right ventricular branches of the right coronary artery. This twig may be traced along the anterior aspect of the ascending aorta, and concavity of the arch, almost to the remains of the ductus arteriosus.

2. A twig from the root of the main trunk of the right coronary, running posteriorily along the right side of the base of the ascending aorta, to the back. (This is the artery which I have myself traced out and injected.)

3. Twigs to the back of the arch, including the posterior aspect of the concavity, from the left bronchial artery. The area supplied by these twigs is situated posterior to, and slightly to the right of, the remains of the ductus arteriosus.

Dr. Thompson adds—"It would seem that, as regards vasa vasorum derived from outside sources, the aortic arch has a fair supply, the area of relative deficiency being, if anywhere, the convexity of the arch. These observations, however, are founded upon the examination of a very few specimens, and are by no means conclusive." He adds a further source of blood, the only one mentioned by MacCallum.

"We have observed the descending aorta to be supplied at regular intervals by recurrent twigs from the intercostal arteries."

Now what bearing have these anatomical facts on arterial disease? They may have little or nothing to do with it but at any rate it is a matter of some importance to clear up the question of blood supply in relation to disease of the aorta. I would say this in comment upon these facts that it is obvious that the ascending aorta and greater part of the arch are dependent for their blood supply upon the integrity of the first centimeter of the right coronary artery. This artery is not nearly so frequently diseased as the left coronary, but in a long series of observations I have frequently found a plaque of intimal thickening just at this very spot. Moreover, it is well known how frequently the openings of the coronaries themselves, both right and left, are involved in syphilitic disease of the aorta. I cannot say that I have found any constant lesion

of the arch in such cases but it is clear that deficient blood supply must interfere with nutrition of tissue and resistance to disease.

One more anatomical fact about the aorta. The commonest site for atheroma is a spot on the concavity of the arch at or very close to the site of closure of the ductus arteriosus. For some years I have been making observations on this point and I have found that if there is only one spot of disease it will almost invariably be found at this point. Now this spot does not appear to be relatively poorly supplied with blood because it gets twigs both from the right ventricular branch of the coronary and from the left bronchial artery. What then can explain this occurrence? I have cut serial sections through an apparently healthy adult aorta (I say "apparently" because even it showed a minute patch only found on a microscopic investigation of disease at the point named.) The only peculiarity I found was that this area showed a relatively large amount of fibrous tissue as compared with musculo-elastic. In other words this area is a normal scar deficient in the resisting element in the arterial wall elastic tissue, and the suggestion is that in spite of its having a sufficient blood supply it is an area defective in nourishment. An isolated observation is of little weight but this matter is not without importance for if we can find out why this particular area is so frequently the seat of disease we might be a long way towards discovering the cause of atheroma.

While we are on this question of blood supply I would like to point out that it is usually assumed that the inner portion of the media as well as the intima is supplied from the blood circulating in the lumen of the vessel, while the outer portion of the media and the adventitia are supplied from the vasa vasorum. Twigs of vasa vasorum are certainly seldom seen penetrating the media for any distance except under pathological conditions, but I have always found it difficult to believe that the blood flowing in the lumen of the vessel supplied anything more than a mere fringe of intima. This is borne out by the fact that fibrous thickening of the intima does not by itself lead to degeneration of the media.

The second anatomical point which I propose to touch upon is the elastic tissue coverings of the arteries. In this relation two types of vessels can be distinguished:

1. The aorta type which comprises the aorta and some of its main divisions including the carotids, the brachials, the pulmonary artery and all its branches. In this type of vessel

the media is formed of alternate layers of thick elastic and muscle fibres, the innermost of which may be called the internal elastic lamina.

The elastic coat of such a vessel consists of a single layer of longitudinally-running fine elastic fibres, lying immediately under the endothelium. As the vessel increases in size a second layer of fibres, also longitudinal, appears, and between the two is a circular layer, the fibres of which lie between the muscular fibres of the media. This type of vessel, with two longitudinal layers and a circular one between is the commonest one found in the lung. As the vessel increases in size, more longitudinal layers are added alternating with circular. When a branch leaves or joins a vessel it is, of course, the longitudinal layer which is continued as the innermost layer of the smaller vessel, the remaining layers being continued or rapidly fading out according to the size of the branch. Amongst the muscle fibres ramify fine elastic strands. (Miller, *Jour. of Anat. & Phys.*, 1905.)

2. In the medium sized arteries and in the arterioles the arrangement is quite different. There is a well defined dense internal elastic lamina composed of thick interlacing fibres. In the media only very fine elastic strands are found ramifying in all directions. There is again in most cases a less well defined external elastic lamina, composed of thick interlacing fibres, the outer ones of which are teased apart in the surrounding fibrous tissue of the adventitia. It should be noted that longitudinal bundles of muscular fibres according to MacCallum are sometimes a marked feature. He states that these are sometimes present in the adventitia of renal arteries.

A musculo-elastic layer in the intima of the aorta has been given prominence by Jores. It is composed of a thin outer and a thicker inner layer of elastic tissue between which are longitudinal muscle fibres. MacCallum states that in his experience the intima varies so much in structure that it is impossible to give a description which holds good for all vessels. He recognizes at the inner margin of the media a musculo-elastic layer composed of an outer single smooth lamina of elastic tissue, a layer of longitudinal muscular fibres and an inner layer of elastic tissue, made up of a network of fibres or laminæ. There appears to be a chemical difference between these two elastic structures as the outer stains red when the inner fibres are blue, or brownish red when they are purple (presumably with Weigert's Resorcin-fuchsin stain.)

It is clear from these anatomical facts that the important tissue from the point of view of resistance to stretching is the elastic, otherwise it would not be so extensively developed in the vessels subjected to the greatest pressure, viz., aorta and main trunks. The muscular tissue is developed most where control of size of channel is the important matter.

Now as regards the intima proper, i.e., the thin layer inside the innermost of the elastic laminæ. This is generally regarded as being composed of a thin layer of connective tissue cells and fibres with a lining of endothelium. The suggestion has been made that some of these cells are smooth muscle fibres but the practical point is that the fibrous thickening of the intima which occurs in early atheroma and in endarteritis obliterans owes its origin to the proliferation of the connective tissue cells, although other cell elements may migrate in from the media. These cells possess the capacity to form elastic fibres, as such are quite frequently layed down in the thickened intima of atheroma and endarteritis obliterans. This capacity of forming elastic fibres in my view (Miller, *Journal of Pathology and Bacteriology,* 1905, p. 351), is possessed by all connective tissue in close relation to preformed elastic tissue and possibly apart from this, where hollow channels containing fluid are subjected to intermittent expansion.

As regards the nature and function of the lining endothelial cell I must frankly admit myself always heterodox. MacCallum dismisses the matter somewhat contemptuously thus: "There is no difference of opinion as to the constant endothelial lining except that some early authors attempted to show the origin of the connective tissue layers from these cells, an idea easily dismissed by Marchand." Now I maintain that this contention of the capacity of vascular endothelial cells to form connective tissue is by no means easily dismissed in the negative. Although not actually the first, I was one of the first workers on the histogenesis of the tubercle nodule (Ziegler's Beitrage 1902, Bd. XXXI, p. 347) to point out the participation of vascular endothelium in the process. More recently we have the work of Foot (*Jour. of Exp. Med.*, 1921, Vol. XXXIII, J. 271, Ibid., 1920, XXXII, p. 533,) and Pernar (Jour. of Med. Research, Vol. 1921, XLII, p. 154) on the function of vascular endothelium in lung and other organs. Foot emphasized the important role which the endothelial cell plays in the formation of the experimental tubercle nodule. He states that miliary tubercles produced in the lung, liver, spleen and kidney lymph nodes and omentum

of the rabbit by hæmatogenous tuberculous infection are composed chiefly of cells originating in the capillary vascular endothelium. These endothelial cells are capable of producing collagenous fibres and the tubercle reticulum is formed from these. I hold, although I admit that I don't teach with as much decision, that the vascular endothelial cell is a fixed tissue cell not widely removed in ancestry from the connective tissue cells and that in the proliferating state it readily undergoes the slight degree of metaplasia involved in producing collagenous and possibly also elastic fibres. This is a matter which in this connection is not merely of academic interest. It follows that the endothelial thickenings of irritative lesions of vessels contain in themselves the capacity to form scar tissue.

Included under the term *arteriosclerosis* as the author understands it are the following conditions:

1. *Atheroma* or *Endarteritis deformans,* a condition characterised primarily by a thickening of the intima, the deeper parts of which then undergo a process of degeneration, fatty and calcareous. The media is apparently only secondarily involved. A nodular form of the disease, chiefly in the larger sized vessels and a diffuse form found mainly in the medium sized and smaller arteries, are usually distinguished.

2. *Syphilitic arteritis,* a condition found almost exclusively in the aorta especially in its ascending portion, characterised by a thickening of the intima of a dense fibrous type without the tendency to fatty and calcareous change. There is, in addition, a development of granulation tissue in the media with small round cell accumulation and vascularisation. The shrinkage of the tissue leads to the characteristic in-drawings or puckerings of this disease. The adventitia tends also to show inflammatory change. In this condition, owing to the weakening of the media, dilation of the aorta and aneurysm formation are frequent. This condition may be combined with the former and thus fatty and calcareous change superadded.

3. *Calcareous degeneration of the media,* a condition usually associated with the name Mönckeberg. The disease is essentially a senile one and involves medium sized and smaller vessels.

4. *Endarteritis Obliterans.* This is a disease about which there is a good deal of confusion. It is very common, occurring in association with thrombosis, e.g., on an atheromatous area, tuberculosis, syphilis and other chronic inflam-

matory diseases. It is essentially a localised condition confined to the area in which the specific inflammatory process is operating. It does not tend to degenerative changes. It is chiefly met with in medium sized and smaller arteries.

There are, in addition, two conditions requiring mention in this relation. 1. Fatty degeneration of the intima met with in toxic disease such as typhoid, scarlet fever and to which Klotz attaches importance as a forerunner of true atheroma. This association may be true but it is at present not generally admitted.

2. A condition named by Russell, *Arterial Hypertonus,* a functional disease in which the thickening of the vessel is due to contraction of the muscular wall from the circulation of irritant substances in the blood. This condition is met with in the early stages of renal disease. It passes off if the cause is removed, but if the cause persist it passes into fibrosis of the media the diffuse form of atheroma. The condition is met with in the medium sized vessels each as radial, and others, in which the muscular coat is well developed.

In his review MacCallum confines his attention exclusively to what is usually termed atheroma. He excludes syphilitic disease as being a distinctly infectious process. He also excludes tuberculous disease, periarteritis nodosa and endarteritis obliterans. I have included some of these conditions in my résumé of the types of arterial thickening because they throw light upon arterial disease in general but I admit that atheroma is the puzzle which we have to solve in this relation and being in itself so vast a field, one is almost forced to restrict oneself to it in taking a general review of arterial thickening.

One word further as regards nomenclature. The old term, *endarteritis deformans,* has practically passed out of existence and will not probably be revived. A word introduced some years ago by Marchand—*atherosclerosis*—and used extensively in Germany especially by Aschoff and his pupils has something to recommend it. It is used in the same sense as we use *atheroma* but it has no particular advantages over the older term and it seems probable that it will lapse.

Primary Lesion and Pathogenesis.

The theories regarding the situation of the primary lesion in atheroma may be divided under two heads:

1. Those which place the lesion in the intima.

2. Those which connect it primarily with the musculo-elastic media.

1. First we have the old original idea that in atheroma the primary lesion is an irritative or inflammatory overgrowth of the intima. There can be no doubt that histologically in most instances this is what we actually find. The sequence of events is then that the deeper parts of the thickened intima deprived of nourishment undergo a fatty degeneration. This fatty material may later be the seat of calcareous deposit. The internal elastic lamina at an early date has its nutrition interfered with, it degenerates and then fragments.

A more modern adaptation of this notion is Klotz's suggestion (*Jour. of Med. Research*, 1914-15, Vol. 31, p. 428) that fatty streaks which occur in the intima as a result of infective disease represent the earliest arteriosclerotic lesion. Preceding the fatty changes is an inflammatory cell infiltration of the intima. This is followed by repair and the proliferation of connective tissue of the intima.

MacCallum negatives this on the ground that the yellow plaques have a different distribution, viz., along the dorsal intima of the aorta circling round the innominate or carotid forming a continuous line while the actual sclerotic plaques are quite irregularly placed. Klotz admits that many of these fatty streaks disappear after the infective process has passed but others remain and may develop later into atheroma.

2. Theories placing the primary lesion in the musculo-elastic media. These may in turn be divided into those laying emphasis upon the muscular element and those placing it upon the elastic tissue. (*a*) Thoma's Theory. This is one which may be regarded as somewhat out of date. It is, however, an ingenious theory which easily receives support from judiciously selected pathological material. Thoma took little cognisance of the elastic tissue of the vessel wall, probably because he had not used selective staining methods to demonstrate it and therefore did not quite realize how largely elastic fibres entered into the composition of the wall of a vessel such as the aorta. "The walls of the vessels are the most elastic of all the tissues of the human body," he says. (Text Book of General Pathology, p. 246), "This property of the vessel wall is accounted for by the presence of the muscular coat." "Infective processes such as tubercle, syphilis, typhoid and scarlet fever affect the elasticity of the vessel wall, many poisonous substances such as phosphorous, also functional overstraining of the arteries, induced by increase of the heart's action. In these conditions through greater tension and weakening of the walls of the arteries the lumen dilates. This is followed by a slowing of the stream

which is the cause of a new formation of connective tissue in the intima of the widened artery. This, again, diminishes the lumen of the artery and the latter is thus re-adapted at the blood stream." This, as far as possible in Thoma's own words, is his theory. The thickening is a complementary process to re-establish the original lumen after a preliminary bulge due to local weakening and increase of blood pressure.

In my opinion, this theory cannot at present be lightly dismissed and, as I have stated, one can easily produce pathological specimens in support of it. But, as MacCallum points out, the weakening of the media is not obvious until a late stage is reached and then it may well be the effect of the dense plaque of tissue lying upon it. (*b*) The theories of Jores, Aschoff, Thayer and Fabian, which emphasize the importance of primary damage to the elastic fibres, especially to the internal elastic lamina, may be considered together. It is somewhat difficult to extract the actual views of the author from Jores' brochure "Wesen u. Entwicklung der Arteriosclerose," 1903. They have been interpreted by Aschoff in "Atherosclerose und andere Sclerosen de Gefasssystems, 1908." The common ground of these theories is that the amount of connective tissue in the walls of vessels is not constant but varies at different ages. The increase in the connective tissue as age advances is associated with a fibrillation of the elastic laminæ, particularly the inner, and at the same time with a laying down of new elastic fibres. Where the physiological process associated with increasing age passes into the pathological it is difficult to decide. In pathological processes of this kind fatty deposit occurs, especially in the internal elastic lamina of the intima, due to some previous change whereby it acquires the chemical property of localizing fatty materials in its substance. This leads to granularity and fragmentation and subsequent sclerotic processes.

Another who lays stress upon the elastic coat (this time the external elastic lamina) is Landa (Ziegler's Beitrage Bd. 68, 1921, p. 180). This observer has investigated a large number (48) of vessels from the drura mater middle meningeal and branches. The cause here is the mechanical pressure of the pulsating artery against the resistant bone. The primary lesion is, as stated, in the external elastic lamina which fragments on the side next the bone. This is followed by changes in the media and intima. In the former degenerative, in the latter productive. (The author does not regard the mechanical pressure as the only cause. It is a predisposing cause. What the other is he does not venture to say as it was not the purpose of his paper.)

Experimental Arteriosclerosis.

A large amount of work has been done on this subject by European and American and notably by Canadian workers. Organisms of various kinds, their toxins, drugs such as adrenalin and nicotin, feeding with chemical substances, have been used as well as simpler methods of raising the blood pressure in various ways. MacCallum considers that much of this experimental work is vitiated by the occurrence of spontaneous arterial lesions in the animal most commonly employed—the rabbit. We may consider the matter under the headings of 1. Bacteria and their toxins. 2. Chemical poisons. 3. Physical methods. 4. Feeding with chemical substances, particularly cholesterin.

1. *Bacteria and their toxins.*

Gilbert and Lion, French Observers, have produced lesions closely resembling those of arteriosclerosis by injecting typhoid bacilli, staphylococci and streptococci.

Klotz and Bailey produced arterial lesions with calcification by injection of diphtheria toxin as well as of organisms themselves.

Saltykow found after repeated intravenous injections of staphlyococci a typical and pronounced disease of the aorta. This was present in two situations—the intima and the media. In the discussion which took place on Saltikow's paper at the Deutsche pathologische Gesellschaft, April, 1908, Aschoff agreed that the changes produced were similar to those found in human disease. Jores, on the other hand, dissented from this conclusion.

2. *Chemical substances in the production of atheroma.*

Isreal was one of the first to produce arterial lesions by a combined clamping of the renal artery and injection of alcohol. According to Saltykow (Verhaud d. deutsch. Path. Gessell. XII, 1908, p. 197) alcohol by itself produces no constant change sometimes it is a medial change, sometimes an endarteritis. Adrenalin has been extensively used in this connection and undoubtedly produces changes in the vessels. Whether these are identical with atheroma is another matter. The change produced is chiefly a medial necrosis, followed by calcification. Intimal thickening is a secondary phenomenon. Fatty degeneration has been observed by Klotz and confirmed by Saltikoff, but it is denied by other experimenters. The change produced by adrenalin is apparently more closely allied to Mönckeberg's calcification of the media than to atheroma. With tobacco and

nicotin similar changes have been produced. In this relation some observations by Beneke (Münch. Med. Wochen, 1919, No. 51) are of some interest. He records three cases of autopsies on soldiers who were notoriously excessive smokers but not drinkers. No element of syphilis was present in the cases. There was found an extensive disease of the vessels characterized chiefly by fatty change in the intima, especially in the coronaries, carotids, subclavians and other vessels. In addition there was marked necrosis and degenerative change in the media. This last would seem to be the chief feature in these cases where a drug is used which raises blood pressure by contracting the vessels. May it not be that the continual contraction of the muscular media compresses the channels upon which the nutrition of this coat depends and necrosis is the result? Apparently, however, administration of adrenalin along with amyl nitrite produces the same lesion so that toxic action would appear to be the main cause. (Klotz.)

3. *Physical methods.*

The production of lesions similar to those found in human atheroma in rabbits by digital compression of the abdominal aorta (Harvey) and by suspension head downwards of the anial for short periods on a number of successive days (Klotz) is too well known to require comment in such an audience as this. Others, it should be added, have failed in the similar experiments, (Steinbus, Miner Hill.) Hill considers that such disease occurs too readily spontaneously in the rabbit's aorta.

4. *Feeding with chemical substances, particularly with certain lipoids.*

A number of observers, notably Anitchkoff and Klotz (*Journ. of Med. Research,* 1916, Vol. 34, p. 45) have carried out feeding experiments of this kind with cholesterin and allied substances. According to the former, even feeding with milk will produce such changes in animals and he contends that Saltikow's experiments with intravenous injection of staphlyococci were vitiated by simultaneous milk feeding. These changes, produced by cholesterin feeding, are a thickening of the intima, due to spindle shaped and rounded cells, in the protoplasm of which appear fat globules. Later the internal elastic lamina undergoes splitting and fragmentation. Klotz states that these changes are similar to those found in infective disease such as typhoid in the human subject. He points to the increase of lipoids, which occur in the blood in infective conditions, as a possible explanation of the fatty streaks in the aorta in these diseases.

General Conclusions.

In considering the causal factors in the disease, MacCallum summarizes as follows:

Arteriosclerosis is one of those diseases difficult to explain because it develops so slowly through long years of life, during which a great many possible causes have had an opportunity to affect the tissues. Our brilliant discoveries as to the etiology of disease come most readily when the transition from health to a pathological state is sudden and easily recognized by symptoms. Hence every conceivable idea has been expressed and tenaciously maintained with regard to this condition and many of them are so vague and ill-supported that it is wearisome to discuss them. None, however, is clearly demonstrated to have a definite bearing on the etiology of arteriosclerosis and we are quite as ignorant of its underlying cause as were our forefathers in the days of Morgagni.

If, however, we rehearse them once more it will be seen how little actual proof there is for the efficacy of these things in producing the disease. If we set them down in a table with the names of those who have expressed themselves for and against each theory, we find the columns about equally filled with names.

Is this not rather a pessimistic outlook? I do not propose dealing with the more clinical factors in the disease such as heredity, age, etc. It seems to me that there are some well ascertained facts in this direction. Let me, however, just summarize my conclusions from the pathological point of view.

1. Certain anatomical facts in relation to the cardiovascular system as a whole require further investigation.

2. Too much attention has been concentrated upon gross, morbid anatomical facts and not sufficient on the nutrition of the vessel wall in conditions of contraction of muscular coat and stretching from high internal pressure.

3. Some new method of investigating normal and diseased vessels after excision must be found which will reproduce more closely conditions as they exist in the living animal.

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Editorial

Occupational Therapy

As a result largely of hospital experiences arising from the Great War, the medical profession in civil hospitals and the public in such organizations as the Red Cross Society are displaying a commendable interest in the value of useful employment of hands and eyes in the often weary period of convalescence in civilian hospitals. The value of light, interesting, and, if possible, profitable occupation for those still more or less disabled in either mind or body, is undoubted. It helps by causing perennial hope to spring again, by re-educating both mind and muscles, and opening up possibilities of usefulness for those who may be hopeless as to further interest in life.

It must be clearly distinguished from Vocational Training, by which is meant the giving of a new calling in life to those who can no longer, by reason of some permanent disablement, hope to follow accustomed trades or means of livelihood.

But the conditions existing in civil life differ radically from those in war-injuries, so much so that without large cost civil hospitals cannot hope to carry the new ideas far into practice. The contract between the country at war and its soldiers and sailors implies an undertaking to give them, at public expense, the completest possible *vestitutio ad integrum* and, in the meantime, complete maintenance on pay and allowance including that of their dependents. What community is prepared to do that for its civilian sick and injured?

The proper carrying out of Occupational Therapy implies the training, and paying, of a staff of specially trained personnel, which should be exchangeable between hospitals, and have a status at least as well recognized as that of masseurs and medical electricians. The tendency to rely upon volunteer services of this kind is bound to end in disappointment, and the merely social or unselfish public devotion to duty of this sort which springs into life under the stimulus of a great national crisis like War, will never meet the daily and yearly needs of a community in ordinary work-a-day times. The needs of General and Special Hospitals too, are quite different from those of Institutions such as those for the defective or the insane, in which the population is in a less constant state of change. The latter group usually exist under some sort of central control, as by the Province or the State, which makes the institution and administration of such a system easier than in an isolated municipal hospital or one locally controlled. Even in these, few communities will be found ready to face the cost. The sums spent by the Government of Canada on behalf of military and naval sick and wounded were far larger than the voter would permit municipalities or provinces to provide for civil needs.

Medical Care of the Indians

The lay press has been of late showing an unusual interest, if temporary, in our Indian brother, chiefly because of the spirit of unrest which seems to have invaded the quiet monotony of the Reserves, particularly in the older parts of Ontario. The medical press has never shown much interest in our native wards of the Sovereign, and is not concerned with their political status and claims, at any rate, directly. It is more than suspected, however, by those of us who hear occasional remarks from *confreres* who come into contact with

the Bands of Northern Ontario or Quebec, for instance, in the huge area between Lake Superior and Hudson Bay, on both sides of the Grand Trunk Pacific Railway from Quebec to Winnipeg, that the Indian has but little protection or care from his guardians, the Government of Canada. Tuberculosis is believed, on good evidence, to be scandalously rife, with next to nothing done to control it. Epidemics, of course, say of measles or diphtheria or influenza, may and do occur, and are grappled with, when heard of, after a fashion, by the Department of Indian Affairs, but apparently only by arrangements extemporized to meet the emergency. In all probability, lack of proper *liaison* between Departments at Ottawa, or jealous regard for their own prerogatives on the part of Ministers, and aversion to a redistribution of duties and responsibilities, would be found on investigation to be, at least in part, responsible for the neglect of the health of the Indians living in the remoter parts of the country. It would seem to one approaching the subject from a fresh and unprejudiced point of view that the health of the Indians might very well be placed in charge of the Department of Health, without any undue invasion of the proper functions of the Department of Indian Affairs.

University of Toronto

The discussion now in progress with reference to the University of Toronto has, we hope to a large extent at least, passed beyond the acute and acrimonious stage and impersonal methods and principles are now being fully considered. We are getting valuable expressions of opinion from Mr. Marshall, of the Ontario Legislature, Sir Joseph Flavelle, Colonel Gibson, the *University Monthly, Saturday Night,* etc., and good, rather than evil, is likely to result.

One important thing we have learned largely from Sir Joseph Flavelle is that the President has often been misunderstood, when he alone was carrying burdens which the Governors should have shared, and this unfortunate situation arose not from any fault of those concerned, but because of the wording of the Act. As Sir Joseph says, he "has had a very heavy task," which many of us think now, and have thought for years, the Government should not have asked him to assume. Such an opinion appears to be gaining ground and strengthens in many the conviction that the Act should be amended in regard to appointments. Since 1906, the appoint-

ments have not been bitterly criticized. Many of the dismissals, however, together with the methods employed, have caused considerable indignation and consternation. Many interesting points in connection with what may be called "history" of the University have come to light in the recent discussion.

Sir Joseph Flavelle called attention to the fact that the Federation of Victoria University, Trinity College, Knox College, Wycliffe College, St. Michael's College, and the University of Toronto, was affected between the years 1887 and 1901.

The working out of this large scheme threw heavy strain upon the governing bodies, and showed certain weaknesses in administration. The Government, in 1905, appointed a Royal Commission of inquiry to formulate a scheme of management, composed as follows: Sir Joseph Flavelle, Professor Goldwin Smith, Sir William Meredith, Sir Edmund Walker, Archdeacon Cody, Dr. Bruce Macdonald, and Dr. A. H. Colquhoun.

The chief charge to this commission was to inquire into and to report upon a scheme for the government of the University of Toronto.

We are told, by the *University Monthly,* that the commission made extensive investigations into the administration systems of other universities and visited some ten American institutions. The most important changes brought about by the University Act of 1906 were in regard to the powers of the Board of Governors and the President. The old Board of Trustees was limited in its authority to finances. Under the present Act, the Board of Governors is given wide powers in respect to University appointments. The scheme of government which is still in existence is, in outline, as follows:

(1) Board of Governors—24 members, 22 appointed by the Government, and 2 *ex-officio*, the Chancellor elected by the graduates and the President, appointed by the Board. The Board has full control over financial affairs and makes appointments on recommendation of the President.

(2) A Senate with 118 members whose duties are purely academic.

(3) A President, the academic head of the University. All appointments are made on his recommendation.

(4) The Faculty Councils, which have supervision of academic matters: their decisions must be approved by the Senate.

(5) A Caput, a committee consisting of the President and the heads of the various Faculties and Colleges chiefly concerned.

(6) A Chancellor elected by the graduates,—a member of the Board of Governors and the Senate, and Chairman of Convocation.

Divine Healing Again

Recently the *Mail and Empire* had a reading item to the effect that, as the result of Mrs. Mattie Crawford's endeavors, more recoveries from afflictions and illnesses were reported. One woman "declared that her hearing had been restored, though deaf from childhood." Another woman "stated she had been cured of a nervous affliction and deafness."

In these cases and others mentioned there are the earmarks of deception and misunderstanding. Some persons are hysterically blind and quite suddenly become able to see, and this, too, without attending the meetings of a so-called "faith healer." The same thing has happened in the case of those who could not speak from hysterical aphonia. There is such a thing as a person imagining that the hearing is worse than it really is, and, after some vivid impression resulting from a religious experience or the doings of a faith healer, the same person imagines the hearing to be better than it really is. All the while, however, there has been no change. This has been well established both as to sight and hearing.

The following case is most important and bears upon the question. It is reported from London, England. A man, who had lost his speech in the War, sat reading. He was irritated by his pet dog, and, forgetting his affliction, shouted "lie down." Then he leaped at the sound of his voice. Since then he speaks quite normally.

It would be most interesting to receive from the faith healers or divine healers an explanation of this case. The element of prayer, or faith, or laying on of hands, certainly did not enter into it. Faith healers should also explain the case of the woman who had been paralysed for thirty years, and was cured by the visit of some friends she had not seen for many years. She forgot her disability and ran downstairs.

It all comes down to a well-known law called suggestion. The Indian Medicine Man with incantations gets results in

certain cases that are just as astounding as those obtained by Hickson, Botsford or Crawford. Indeed, the ignorant savages—real pagans—are often successful in cases of a neurotic type, or where the ailment is of a temporary kind and disappears whether treated or not. Animals understand a good deal about suggestion, as any one can see by watching the mother duck teaching her brood to swim, or the mother bird teaching the young ones to fly.

Health of the Student Body

The University of Toronto Health Service, under the direction of Dr. George D. Porter, aims at promoting the health and physical fitness of the students. A staff of eight physicians, together with many specialists, selected by the Professor of Medicine, have examined the first two years' students and also the athletic team carefully. This year 1450 were examined with gratifying results, as it has been found that practically 96 per cent. are able to take physical training. On the other hand, some serious disabilities have been found, such as, heart lesions, chest, kidney and surgical diseases, among the 4 per cent. not able to take the gymnasium work.

Lectures on personal hygiene have been delivered to the first and second year students in all faculties. While the Health Service does not assume the responsibility of caring for the sick, it endeavours to see that any student who may be ill is properly looked after by his own or some responsible physician.

Western University

There is probably no university in Canada in a more flourishing condition than the comparatively new Western University, of London. The authorities of that institution have recently acquired a large and fine property, containing 250 acres of land, which will be used exclusively for university purposes. The buildings to be erected will be distinctive. A type of collegiate, Gothic architecture in grey stone, has been chosen for the first building and future structures will be of similar type.

The Western University was established in 1878 and conducted under Anglican denominational auspices. After a complete reorganization in 1908, it progressed fairly well,

although greatly hampered by financial difficulties. As these have been to a large extent removed, the Governors are making provision for more adequate accommodation in the three existing faculties of Arts, Medicine and Public Health. There are now 125 members of the teaching staff and an enrolled attendance of 750 regular students, in addition to a large number of extra-mural students in the fourteen counties of Western Ontario outside of London.

A new Arts building is now being erected and the first sod for the foundation of the new structure was turned by His Excellency Lord Byng, April 15th, who at the same time delivered a short but interesting speech.

Cancer of the Stomach

By means of the Wolff-Junghans test, which determines an increase of soluble proteins in the gastric contents, it is possible frequently to detect cancer of the stomach. The reagent is prepared as follows:—

Phosphotungstic acid - -	0	30
Hydrochloric acid, strong - -	1	00
Alcohol, 96 per cent. - -	20	00
Distilled water - - -	to 200	00

The patient is given a light meal the evening preceding the examination. Next morning an Ewald test breakfast is given; this is extracted 45 minutes after ingestion, and the contents filtered until clear. Six test tubes are taken, and by means of a graduated pipette a portion of the filtered contents is placed in each tube—one c.c., 0·5 c.c., 0·25 c.c., 0·I c.c., 0·05 c.c., 0.025 c.c.—the volume of each being made up with distilled water to 10 c.c. and mixed well. To each tube is added carefully one c.c. of the reagent: a white ring will appear at point of contact. Normally this will appear in the first five dilutions, and occasionally in the sixth. In carcinoma the white ring will appear in still higher dilutions, 0.01, 0.005, and sometimes even higher.—*The Prescriber.*

News Items

University Alumni in England

The motherland branch of the Toronto Alumni Association in London, England, held a luncheon, March 30th. Sir Hamar Greenwood, B.A., '95, the President of the Branch, was prevented from taking the Chair, through unavoidable absence. Among those present were, Drs. Donald Armour and George Badgerow, Messrs. A. Haultain, J. B. Tyrrell, W. H. Blake, F. C. Redden, Miss Elizabeth Montizambert (author of "Unnoticed London,"), H. P. Biggar and others.

Mr. Angus MacMurchy, of Toronto, was present and delivered a short address dealing with the work of the Alumni Association, chiefly with its activities in raising a War Memorial Fund and in making loans to returned soldier students, who were experiencing difficulty in completing their courses.

Poisoning by "Spotted" Hemlock

A terrible tragedy occurred in L'Orignal, early in May, when seven members of one family died from poisoning. The victims were: grandfather, Joseph Lacroix, aged 75, the father, aged 40, the mother, aged 40, and four children, aged 11, 10, 8 and 6, respectively. It was first reported that the victims had taken wild parsnip, later that they had taken wild parsley. Later it was discovered that they had taken what is known as "wild hemlock." Although poisoning by this herb is not very rare, we fear that most of our general practitioners know little about it, and have some vague idea that it is something connected with the hemlock tree. To call it "wild parsley" is incorrect, although in former times it was sometimes called "fool's parsley." Conium, probably the correct name for the herb, is commonly found in hedges, especially at the roadside, and is recognized by its mousey odour.

The symptoms of this poisoning are weakness of the legs, faltering gait, the patient staggering as if intoxicated, pupils dilated and fixed, loss of sight, inability to swallow, asphyxia, loss of all voluntary powers, generally ending in death.

Connaught Antitoxin Laboratories

In May, 1914, Dr. J. G. Fitzgerald, Professor of Hygiene, University of Toronto, with the consent of the Board of Governors and the sympathetic support of Sir Edmund Osler, established in the University of Toronto a small department then known as the Antitoxin Laboratory.

In 1915, thanks to the generosity of Colonel Albert Gooderham, of Toronto, a farm of 50 acres was secured in York Township, 12 miles from the University. On this property were erected most complete laboratories and stables for the production of public health biological products, diphtheria antitoxin, smallpox vaccine, etc. In 1917 this splendid gift, known as the Connaught Antitoxin Laboratories, was formally transferred by Colonel Gooderham to the Board of Governors of the University of Toronto and opened by His Excellency the Duke of Devonshire, then Governor-General of Canada.

According to the terms of the deed of gift, the Connaught Antitoxin Laboratories were donated for the purpose of providing facilities for research in preventive medicine and for the production of antitoxins, sera and vaccines of value in public health work.

April 22nd marks the passing of the last of the old independent medical weeklies—the *Medical Record.* The final issue as a separate publication appeared on that date and announcement was made that the *Medical Record* had been sold to, and combined with, the *New York Medical Journal,* which appears semi-monthly.

Throughout the fifty-six years of its service to the profession, the *Medical Record* has had the same publishers and but two editors. Dr. George F. Shrady guided its course for the first thirty-eight years and was succeeded by his assistant, Dr. Thomas L. Stedman, who has long been dean of American medical editors, and widely esteemed. The famous old firm of William Wood & Company will now devote its energies entirely to the publication of medical books in which service it has been engaged for 118 years.

It is interesting to recall that many of the most important discoveries and developments in the progress of medicine were first announced to the American profession by the *Medical Record.* These include Lister's method of antisepsis; Koch's discovery of the tubercle bacillus and that of

tuberculin; the employment of cocaine in eye surgery; the Rœntgen rays; the discovery of the antitoxin of tetanus and that of diphtheria; Madame Curie's discovery of radium and many others.

Dr. Malcolm T. MacEachern has been General Superintendent of the General Hospital in Vancouver since 1913. He was recently granted a year's absence by the Governors of the Hospital to become Director General of the Victorian Order of Nurses.

He was born in Victoria County, and received his preliminary education in the Collegiate Institute, Lindsay, and his medical education at McGill, from which he graduated, M.D., in 1910. After serving for a time as House Surgeon in the Royal Victoria Hospital he was appointed Medical Superintendent of the Montreal Maternity Hospital, remaining in that position about two years.

While in Vancouver he earned a high reputation as a hospital administrator, his fame in that regard having spread over the whole American continent. He is Vice-President of the American Hospital Association, and Assistant Director of the American College of Surgeons, and, as the Canadian representative of that body, is in charge of hospital standardization for the Dominion during the coming year.

Smallpox in Toronto

Dr. Hastings, M.O.H., Toronto, announced to the doctors of that city, May 9th, that there were a few cases of smallpox, and he warned them of the danger of making a wrong diagnosis, especially considering the fact that chicken-pox was, to some degree, prevalent. He also urged the importance of reporting all cases of chicken-pox as early as possible. Where there is any doubt as to diagnosis he will always be pleased to send a skilled diagnostician.

Personals

Dr. Franklin Martin, of Chicago, spent a portion of the second week of May in Toronto.

Drs. Alex. Hutchison and A. Jenks. of Montreal, visited Toronto, May 10th.

Dr. Fred Grasett, of Toronto, left for a short holiday at Preston Springs, May 1st.

Dr. R. Oscar Miller is now practising at 25 East 30th Street, New York City.

Dr. George Porter, of Toronto, sailed for Great Britain in the latter part of May.

Dr. David Dick is Superintendent of the Hospital for Returned Soldiers, at Red River, Alberta.

Dr. Harry Glendinning has gone to Great Britain and is now engaged at post-graduate work in Edinburgh.

Mrs. A. M. Huestis, of Toronto, was elected President of the Social Hygiene Council, as successor to Rabbi Brickner.

Dr. Edward L. Cash, formerly of Ottawa, has retired from active practice and is now living on an orange ranch at Montebello, Cal.

Dr. Albert H. Baker has been for some time the Medical Superintendent of the Dominion Government Sanatorium at Keith, Alberta.

Dr. R. N. Tripp is doing special work in the Skin and Cancer Hospital, New York City. His address is 144 East 22nd Street.

Dr. I. Ruebert Smith, 116 College Street, Toronto, is now in Philadelphia taking Dr. Chevalier Jackson's special course in Bronchoscopy and Oesophagoscopy.

Dr. Fred. Routley who was engaged in general practice at Maple, Ont., has been appointed director of the Ontario Division of the Canadian Red Cross Society.

Dr. Jas. A. Robertson and Dr. Lorne Robertson, of Stratford, after visiting Naples in February, travelled through northern Italy, Switzerland and France to England and Scotland, and on their return reached home May 2nd.

Dr. John Henry Bell, of Hamilton, has been appointed Provincial Medical Examiner of the Royal Arcanum in Ontario, in the place of Dr. George Elliott, of Toronto, deceased.

Dr. Gordon McLarty, who has been engaged in post-graduate work at the Boston Psychiatric Hospital and at Harvard, went to New York in April and is now doing work in the Bellevue Hospital.

Is there a War Epilepsy? Zeitschr. f.d. ges. Neurol. u. Psychiat., 1919. By Hugo Richter.

By war experiences light has been thrown on the origination of both epilepsy and hysteria such as could not have been obtained by many years of observation under peace conditions. The author gives the results of his experiences with epilepsy, covering a period of about eight months in the Garrison hospital at Budapest. He observed 450 cases, of which 250 developed epileptic seizures during war experiences. He gives extensive tables setting forth the causes in each case, the type of epilepsy, etc., and arrives at the conclusion that, in a considerable number of cases where there are no considerable congenital stigmata or signs of degeneration, epileptic seizures make their appearance following a war trauma (shock) and a permanent condition sets in resembling that observed in "genuine" epilepsy. In this sense the author states, it may be said that there is a war epilepsy, produced immediately and principally by injuries and stresses of war. This view is entirely in conformity with the theory advanced by Redlich concerning the nature of epilepsy. Those who succumb to war epilepsy are individuals in whom the tendency to epileptic reaction—a mechanism existing in every brain—is somewhat more easily set in activity than in persons exposed to the same experiences who do not develop the disease under the same strain, but less easily than in those who develop epilepsy even in the ordinary life of peace times. Even in these latter individuals congenital stigmata and sign of degeneration furnish indication of heightened tendency to epileptic reaction in only about one fourth of the cases. [J.]—*The Journal of Nervous and Mental Disease.*

Society Proceedings

Medical Meetings at Winnipeg

We are assured that the three medical meetings of the following societies, Canadian Medical Association, Canadian Radiological Association, Canadian Society for Anæsthetists, to be held June 20th to 23rd, in the city of Winnipeg, are likely to be, in all respects, successful.

The following is a nearly complete list of papers and addresses with names of the authors:—

Surgery.

Campbell, A. McK., "Abdominal Surgery"; Carman, R. D., "Roentgenologic Diagnosis"; McMecham, P. H., "Anaesthesia"; Graham, R. R., "The Gall Bladder Problem"; Boyd, W., "Gall Bladder Pathology"; MacKay, D. S., "Treatment of Pelvic Inflammation with Radiant Heat"; McKenty, J., "Duodeno-jejimostomy"; Finney, J. M. T., "Operations for Gastric and Duodenal Ulcer"; Risden, F., "Plastic Surgery of the Head and Neck"; McKenzie, D. W., "Infections of the Renal Pelvis"; Bruce, H. A., "Hypernephromata"; Seng, M. I., "The Prostate Problem"; Gordon, C.S., "A New Cysto-urethroscope"; Cromarty, R. P., "Surgery of the Upper Abdomen"; Boardman, E. J., "Renal Calculus"; Brandson, B. J., "Perforated Duodenal Ulcer"; Aikins, W. H. B., "Radium Therapy"; Primrose, A., "Tumours of the Breast"; Bazin, A. T. and Gurd, F. B., "Lung Abscess"; Dean, R. B., "Coxa Plana"; Keenan, C. B., "Plating in Compound Fractures"; Gibson, A., "Fractures of the Os Calcis"; Gardner, W. A., "Osteo-arthritis."

Medicine.

Barker, Address; Banting, Best, C. H., and Cumming, "Diabetes"; Pierce, S., "Blood Cholesterol"; McPhedran, "Physical Conditions"; Russel, "Epidemic Encephalitis"; McKenzie, "Functional Paraplegia"; Hunter, "New Psychology"; Burridge, A. J., "Auricular Fibrillation"; Martin, C..

"Gastric Disease"; Goldie, "Gastric Ulcer"; Brown, "Chronic Intestinal Indigestion in Children"; Young, F., "Measurement of Venous Pressure."

GENERAL MEETINGS.

Cole, L. G., "Roentgen Indications in Gastric Ulcer"; Finney, J. M. T., "Spasmodic Torticollis"; Todd, J., "Medical Research"; Montgomery, E. W., President's Address; Barker, L. F., Address; Miller, J., "Tuberculosis"; Stewart, D., "Intestinal Tuberculosis"; McGregor, J. K., Howard, Campbell, Starr, F. N. G., McKechnie, R. E., "Goitre."

Note. Wednesday June 21st at 8.15 p.m., Public Meeting to be addressed by Drs. Barker and Finney. Lieutenant-Governor R. G. Brett, Chairman.

The Canadian Society of Anaesthetists are holding their second annual meeting at Winnipeg, in conjunction with the Canadian Medical Association, June the 20th and 21st, 1922. The following are on the programme:—

Presentation of the Gavel, the gift of the society's first president—Dr. Samuel Johnston, Toronto.

President's address, "New Anaesthetic Ethers," Wm. Webster, Winnipeg.

"Eleven Years' Observation of the Minute Volume of Respiration in Anaesthesia, with a Discussion of Some of the Factors Influencing the Same," E. I. McKesson, Toledo, O.

"Studies of Acidosis in Anaesthesia," Henry G. Barbour, Raymond L. Stehle, and Wesley Bourne, Montreal.

"The Breathing of Nephritics," Beaumont S. Cornell, Brockville, Ont.

"On the Relief of Pain in Obstetrics," James W. Duncan, Montreal.

"A Review of the Post-operative Pulmonary Complications in 7,000 Cases of Anaesthesia," Dr. Aikenhead, Winnipeg.

"Ether Anaesthesia and Fatty Liver," W. B. Howell, Montreal.

"Newer Trends in Anaesthesia," F. H. McMechan, Avon Lake, Ohio.

"Anaesthetic Properties of Pure Ether," Raymond L. Sthele and Wesley Bourne, Montreal.

"A Review of Spinal Analgesia," W. G. Hepburn, Montreal.

"Nitrous Oxide-oxygen Anaesthesia in Nose and Throat Surgery," E. I. McKesson, Toledo, O.

"The Welfare of the Surgical Patient," Dr. Slater, Winnipeg.

"On the Teaching of Anaesthesia to Medical students," W. B. Howell, W. G. Hepburn, and Wesley Bourne, Montreal.

"The Post-operative Incidence of Acetone and CO_2 Content of the Blood," K. G. Grant, Winnipeg.

There will be an entire morning session set aside for clinical demonstration in anaesthesia.

Social activities will be well worth while and closely connected with those of the Canadian Medical Association.

For further information, membership and dinner reservations address:—

Wesley Bourne, M.D., *Sec-Treas.*,
34 St. Mark Street,
Montreal.

The Academy of Medicine, Toronto

The election of new officers and members of the Council resulted as follows:—President, Dr. W. H. Harris; Vice-president, Dr. J. T. Fotheringham; Honorary Secretary, Dr. F. C. Harrison; Honorary Treasurer, Dr. J. H. McConnell; Past President, Dr. R. T. Noble.

Members of Council—Dr. H. B. Anderson, Dr. N. A. Powell, Dr. E. E. King, Dr. G. S. Young, Dr. J. H. McPhedran, Dr. E. A. McDonald, Dr. H. C. Wales; Dr. A. J. Mackenzie, Chairman, Section of Medicine; Dr. H. E. Clutterbuck, Chairman, Section of Surgery; Dr. Andrew Hunter, Chairman, Section of Pathology; Dr. W. W. Wright, Chairman, Section of Ophthalmology and Oto-Laryngology; Dr. E. A. Morgan, Chairman, Section of Paediatrics; Dr. N. D'Arcy Frawley, Chairman, Section of Obstetrics and Gynaecology; Dr. A. Grant Fleming, Chairman, Section of Preventive Medicine and Hygiene.

A conference on Tuberculosis was held in Ottawa on March 14th, 15th and 16th jointly by the Department of Soldiers' Civil Re-Establishment and the Canadian Association for the Prevention of Tuberculosis. The following is a list of subjects discussed: Diagnosis of Pulmonary Tuberculosis; Differential Diagnosis; Standardization of Minimal Requirements; Classification of Pulmonary Tuberculosis; Treatment; Sanatorium Administration; After-Care; Pensions; Miscellaneous. Among those present were: Dr. C. D. Parfitt, Gravenhurst; Dr. J. R. Byers, Ste. Agathe; Dr. A. H. Baker,

Calgary; Dr. D. A. Stewart, Ninette, Man.; Dr. D. A. Carmichael, River Glade, N.B.; Dr. H. B. Logie, Edmonton; Dr. J. H. Elliott, Toronto; Dr. J. H. Holbrook, Hamilton; Dr. W. Wilson, Vancouver; Dr. J. S. Pritchard, Battle Creek, Michigan, U.S.A.; Dr. A. W. H. Caulfield, Toronto; Dr. R. D. Hewitt, Toronto; Dr. F. H. Pratton; Dr. A. T. Bond, Ottawa; Dr. H. A. Rawlings, Ottawa; Dr. J. R. Ritchie, Regina; Dr. G. C. Brink, Hamilton; Dr. A. F. Miller, Kentville, N.S.; Dr. H. A. Farris, St. John, N.B.; Dr. W. D. Kendall, Gravenhurst; Dr. B. H. Hopkins, Kingston; Dr. R. G. Ferguson, Fort Qu'Appelle; Dr. F. M. Wells, and Dr. E. W. Archibald, Montreal; Dr. R. I. Harris, Toronto; Dr. A. F. Macauley, Ottawa; Dr. R. S. Stevens, and Dr. W. M. Hart, Ottawa; Colonel E. G. Davis and Dr. J. F. McQuay, Members of the Board of Pension Commissioners, Ottawa; Mr. N. F. Parkinson, Deputy Minister, and Major E. Flexman, D.S.O., Director of Administration, Department of Soldiers' Civil Re-Establishment.

The Canadian National Council for Combating Venereal Diseases has appointed the following Managing Committee: Hon. Mr. Justice Riddell, Col. Albert Gooderham, E. R. Wood, Judge J. D. Gould and Dr. H. Mullin, Hamilton, J. E. McConnell and Major Gordon Ingram, London, Dr. Gordon Bates, Dr. Andrew Grant, J. H. Gundy, with others to be added in the near future.

Obituaries

Sir Patrick Manson, M.D.

We learn from the *Spectator* (Eng.) that Sir Patrick Manson died April 9th. He was born in Aberdeenshire, in 1844, and after graduating in Medicine at Aberdeen, he went to Formosa. In the early '70's he first detected the agency of the mosquito in spreading elephantiasis. Following this he and his disciples, such as Sir Ronald Ross and Sir David Bruce, discovered that malaria and yellow fever were due to infection by mosquitoes. It then became possible by destroying mosquitoes in their breeding places to free Cuba and the Panama Canal zone from "Yellow Jack" and to make the fever-ridden Campagna habitable.

Albert Lauder Kinsey, M.B.

Dr. A. L. Kinsey died at Gravenhurst after a rather long illness, on April 29th, aged 37. He graduated, M.B., from University of Toronto and practised for a number of years in Hearst, in Northern Ontario.

Book Reviews

A Guide to the Poisonous Plants and Weed Seeds of Canada and the Northern United States, by R. B. Thomson, B.A., F.R.C.S., Associate Professor of Phanerorganic Botany, University of Toronto, and H. B. Sifton, Assistant Professor of Research in Botany. University of Toronto Press, 1922.

Till the appearance of this book, there was no authoritative work on the poisonous plants of Canada, so that this volume fills a long-felt want. Although primarily intended for veterinary students, the subject matter is most useful for physicians as well, for one section is devoted to plants that are responsible for poisoning in man. Almost every spring there are cases of poisoning from the wild parsnip, about which there is a great deal of misunderstanding. The garden parsnip has never been found to be the cause, nor is strychnine the lethal agent, newspaper reports to the contrary.

The authors point out the need of further investigation into the chemical nature of many of these poisonous plants, as well as a careful record of the symptoms of their effects, a part in which physicians could help a great deal.

The book is of a handy size, well printed and illustrated.

The Venereal Clinic. The Diagnosis, Treatment and Prevention of Syphilis and Gonorrhœa. A Handbook of Venereal Disease in relation to the Individual and the Community. By several writers. Edited by Ernest R. I. Clarkson, M.A., Cantab., M.R.C.S., L.R.C.P., Chief Clinical Assistant Urogenital Department (Males), London Hospital; late Demonstrator in Human Anatomy in the University of Cambridge. With an introduction by Sir Squire Sprigge, M.D. Illustrated with 11 colored and 9 other plates. London: John Bale, Sons & Danielsson, Ltd.

The *raison d'etre* of the publication of the above work is ascribed by its editor, Mr. Ernest R. I. Clarkson, to the suggestion of Dr. Egbert C. Morland, the assistant-editor of *The Lancet* and as Sir Squire Sprigge, its editor, has written an introduction, it may be said that the book has been brought out under favorable auspices. The object of the work, as

stated in the introduction, has been to provide a precise and up-to-date manual for the general practitioner and student attending venereal disease clinics. It is intended, in fact, to be an educational work for the behoof of the rank and file of the medical profession, to explain and demonstrate the scheme provided by the State offering to the public free facilities for the detection of venereal diseases and, also, adequate machinery for their treatment. All the contributors to the volume are foremost and experienced exponents of the methods of prevention and treatment of the various phases of venereal disease concerning which they write, and the whole represents a remarkably valuable book of reference of an eminently practical kind. However, the part of the book with which this review will particularly deal is that of *Prevention*, written by the editor himself. The question of the prevention of venereal disease in Great Britain is a very vexed one, there being two important bodies concerned with venereal disease who hold views of a somewhat divergent nature, the National Council for Combating Venereal Disease and the Society for the Prevention of Venereal Disease. The main point upon which these bodies clash is early self disinfection, which is a measure strongly advocated by the Society for the Prevention of Venereal Disease and is opposed by the National Council. Mr. Clarkson, who possesses a very open mind, discusses the views of both societies with great impartiality and fairness and believes that a compromise is not only quite possible but should be reached for the lasting benefit of the community at large. The objections of the Council were in the first instance of an ethical nature and in the second place were due to a disbelief in the physical efficiency of immediate self-disinfection. However, it must be said that the Council has, to some extent, come round to the viewpoints of the Society for the Prevention of Venereal Disease, and that the points of difference now certainly do not appear to be insuperable. The author draws attention to a feature of the situation regarding which much has been written and spoken during the past few years, that is, the attempted analogy between irregular sexual intercourse and indulgence in alcohol in their individual relation to physical health. It is shown that such an analogy does not exist. It has been proved beyond peradventure that the consumption of alcohol is physically and mentally injurious but in dealing with the problem of promiscuous sexual intercourse, we are dealing with one which

intrinsically differs from that of alcohol. It is impossible to tell individuals that if they engage in irregular sex relations that such indulgence is of necessity physically injurious, for such a statement is not true. It is pointed out that religious, ethical, educational factors or the fear of consequences have little effect in reducing promiscuous sexual intercourse which is said to be the main cause of increase of venereal disease and which, that is, promiscuous intercourse, Mr. Clarkson states is rampant in Great Britain now and will be for many years to come. As these factors have failed to check the prevalence of irregular sexual intercourse and *pari passu* the prevalence of venereal diseases, it is obvious that other means must be resorted to. Personal prophylaxis has been, and is being, advocated for this purpose and it is around this subject that the controversy has mostly and most furiously raged. Two measures have been recommended to prevent the development of venereal disease in an individual who has been exposed to the risk of infection. These are: (1) Immediate "self-disinfection" or "quick disinfection" or "prophylactic treatment;" (2) "Early preventative treatment" or "delayed preventative treatment." The first is the treatment advocated, from its foundation, by the Society for the Prevention of Venereal Disease and the other is that recommended by the Council, although now they recommend a form of immediate self-disinfection. Mr. Clarkson discusses the for and against of these methods and, while not committing himself to a definite statement, appears, perhaps, to lean somewhat towards the self-disinfection methods. In any event, he deals with the question with conspicuous fairness and urges a compromise. He holds that the two bodies who are attempting to fight the national foe should try to discover a common basis for their endeavors. The Council now are in favor of immediate self-disinfection by means of soap and water. As said before, they are, also, in favor of delayed preventive treatment. The Society advocates immediate self-disinfection by means of chemical substances which, in the majority of cases, can be more conveniently and safely utilized. As the author says, "Surely there is sufficient common basis to be found in the common idea that certain procedures should be carried out by the individual." Stress is strongly laid upon the need which urgently exists for the treatment of venereal disease in women and to remedy this deficiency to a certain extent, Mr. Clarkson recommends that hostels should be provided where women whose condition is

not so critically urgent as to justify their being received as in-patients of a hospital, may be received and obtain the necessary treatment. It must be borne in mind that the effective and adequate treatment of infected women is essential to the safety of the public. The part of the book dealing with prevention is chiefly discussed for the reason that prevention is infinitely of more importance than treatment, and because the sole hope of extinguishing venereal disease lies in effective preventive measures. The other parts of the book are extremely good, that on *Syphilis,* by Dr. Malcolm Simpson, particularly so. The chapter on *Metastatic Gonorrhœa,* by Dr. Simpson and Mr. Clarkson, is deserving of special mention. Dr. Morna Rawlins writes well on *Gonorrhœa in the Female.* In all respects this book, termed a manual, may be recommended. Not only is the subject matter of great excellence but the book is well printed, paper of good quality, and admirably illustrated. Although it is full of useful information, it is not bulky, and is well adapted as a *vade mecum* for Canadian medical men who are called upon to treat cases of venereal disease or for an officer of a venereal clinic.

Treatment of Sciatica

Barre and Gunsett (*Journ. de radiol. et d'electrol.*) have treated by *x* rays 20 cases of sciatica in which the symptoms were due to radiculitis caused by vertebral arthritis, as shown by *x*-ray examination; 12 of the cases were cured, 5 were improved, and 3 only derived no relief. The forms which were most susceptible to treatment by *x* rays were those in which pain constituted the most prominent sign. The patients hardly ever showed any amyotrophy or changes in the reflexes. Radiculitis of meningeal origin, such as that caused by syphilitic meningitis, did not appear to be definitely affected by the treatment. In cases in which radicular pain was associated with pyramidal disturbance *x* rays generally had no effect on the latter. The writers found that the chances of success were not decidedly diminished by the fact that the radicular pain was of old standing, although recent cases were more susceptible to treatment. As a rule small doses repeated once a week were sufficient to produce a cure. In some cases no improvement occurred, although no explanation of the failure could be given.—*British Medical Journal.*

Correspondence

Our London Letter

(*From our own Correspondent.*)

London, March 30, 1922.

Influenza in epidemic form has died out in this country, but it may be of interest to Canadian medical readers to learn what knowledge the Ministry of Health have gleaned from the information obtained by its medical staff since December last when the disease first manifested itself on a wide scale. However, before entering into the question from the outlook of the Ministry of Health, it may be pertinent to the point to say that so far as the etiology of the disease is concerned, no fresh light has been thrown upon its obscure features. Indeed, its origin appears more mysterious than ever. At the present time few authorities attribute to Pfeiffer's bacillus the causation of the infection and the majority of investigators only regard this bacillus as one of the causes, while some go further and are apt to disregard this germ or to look upon it as a factor of no particular importance in the origin and dissemination of the malady. The truth seems to be that more than one, or, even, that several harmful originators of infection are concerned, and that a great deal more investigation is required ere any dogmatic assertions can be made. In a statement issued a short time ago, by the Ministry of Health, it is pointed out that the epidemic, just passed, on present evidence might be classed with those which occur with some regularity in the years which follow a great pandemic. It bore the same relation in time to the pandemic of 1918-1919 as the recrudescence of 1895 bore to the severe epidemic of 1892, the most fatal of the three waves which affected London in the pandemic period, 1889-1892. As compared with the 1918-1919 period the number of persons attacked in this last epidemic was smaller and the severity of the disease was usually much less. This statement goes on to say that epidemic influenza varies notoriously, not only in its severity, but in the symptoms by which it is characterized. In ordinary cases during the

most recent epidemic the attack took the form of two or three days' fever. The acute catarrh of an ordinary heavy cold was by no means general. The most frequent symptoms were sudden onset, headache, pain in the back and legs, and congestion of the throat with sore bronchial catarrh and an irritating and very persistent cough. Other forms which have been described were attacks akin to a mild cold, but followed by severe general depression and a gastro-intestinal form. In the latter, nausea, occasional vomiting, diarrhœa, pain and tenderness in the abdomen, particularly in the epigastric region and often a great deal of gastro-intestinal flatulence with offensive stools, were conspicuous symptoms. The occurrence of spotty rashes on the face and attacks of giddiness have also been described. Accounts of persons fainting or falling in the streets in consequence of sudden onset of influenza have been much exaggerated. Most of the deaths were due to pulmonary complications, although these complications in the young adult and persons of middle age occurred far less frequently than in the pandemic years of 1918-1919. The clinical evidence pointed to a somewhat severe incidence in very young children and a heavier fatality in persons at advanced ages. With regard to the value of vaccines, the statement says that it does not appear that available influenza vaccines prevent attacks of influenza, but their judicious and timely use gives material security against the more dangerous complications, particularly pneumonia, which may result from an attack. The protection conferred by these vaccines is not fully established for a week or ten days after the first inoculation, and they are, therefore, likely to be of more advantage if used in areas not hitherto visited by epidemic influenza, or by persons in such areas before visiting places in which influenza is prevalent. As regards hospital treatment, this memorandum proceeds to say it should be remembered that, as a rule, patients with pulmonary complications bear removal badly and such removal should, therefore, only be attempted with the concurrence and the supervision of the medical practitioner. It is, however, important that hospital treatment should, to the greatest extent possible, be available for those exceptional cases in which the sufferer is unable to obtain any attention or nursing at his home. The only satisfactory part of this memorandum is that which states that influenza vaccines afford material security against the more dangerous complica-

tions, particularly pneumonia. Yet the question may be asked, has this been the experience generally of those who have used vaccines in America and elsewhere? For, if vaccines do confer a certain degree of security against pneumonia, the most dangerous complication, then they certainly are valuable. On the whole, our knowledge of influenza causation, diagnosis, and so on, is by no means very clear, whilst treatment of the more dangerous forms, at any rate, is almost a confession of failure.

There has been going on for some little time a discussion which has verged almost on the acrimonious, with regard to co-education in medicine. Numerous letters from members of both sexes have been published in medical and lay journals, setting forth the views of those who advocate mixed classes in the medical schools, and those who are averse to men and women studying medicine together. In London, only, quite a few of the schools admit women as students, and the controversy has been brought to a head recently by the decision of the authorities of the London Hospital, that immense institution situated in the heart of the poorest district of London, to close their doors, which were formerly open, to women students. This decision, unexpected it may be said, has brought the matter to a climax, and the opinions of the opposing forces have been expressed sometimes with considerably more vigor than judgment. The women, who have corresponded on the subject, with scarcely an exception, have insisted on the right of a woman to be placed on an absolute equality with men so far as medical education is concerned. They claim that they should be admitted to all medical schools. On the other hand, men, as a rule, and certainly the majority of students, object most strongly to the admittance of female students, and give various reasons for their objections. One reason, and perhaps this is the most valid, is that, as it is, the schools are greatly overcrowded, there is not sufficient room for the men. Another reason given is that it is embarrassing to work side by side with women and that it hampers, to some extent, the scope of the teaching,—professors and lecturers do not care to enter into certain details with the same freedom before a mixed class, as they would enter before a class composed of men only. Yet another reason, and this is one usually professed by a professor, is that the teaching of Medicine and Surgery to women in the company of men destroys, or at least, impairs the bloom of modesty in

young women. Of course, a good deal may be said on both sides. It is true that the ranks of medical students are overcrowded already, and possibly it would be better that women should study in medical schools confined to members of their own sex. But they say, and there is no denying the fact, that there are so few of such schools that but a tithe of those desirous to study medicine can be admitted to them. For example, there is only one Women's Medical School in London and this is full to overflowing. Moreover, the large medical schools have much superior facilities for teaching. However, after all, there is no evading the point, that a woman is not so well adapted physically or physiologically for general practice as is a man. As Sir Almroth Wright contended, she is a good deal handicapped by her physiological "make up." She is excellently adapted for Preventive Medicine and Infant Welfare work and there is plenty of call for her services in India and in countries where it is contrary to religion or caste that men should attend women medically. The insistence on the part of women to claim equality with men as regards medical education is only one more sign of the times.

Following in the footsteps of the late Lord Mountstephen, who left the bulk of his immense fortune to British hospitals, Sir Thomas Sutherland, a Scotchman by the way, as was Lord Mountstephen, has left almost his entire estate to King Edward's Hospital Fund for London. By the will of Sir Thomas Sutherland, late Chairman of the Peninsular and Oriental Steam Navigation Company, the London hospitals will benefit to the amount of £400,000.

A work of quite uncommon interest has just been published. This is a French edition of Commander W. Seaman Bainbridge's book, "The Problem of Cancer," published by Macmillan Company of New York, in 1906. The book was very favorably received in its English dress, as it presented the problem of cancer in a comprehensive and, at the same time, in a discriminating manner. The present edition is, in one respect, at least, unique, because it is the first work issued from the press of the Three Kings of Louvain University since the buildings of that venerable seat of learning with its priceless treasures were burned to the ground by the Germans. At the time of its publication Commander Bainbridge, U.S.N.R., was acting as American delegate to the International Council on Military Medicine, Surgery and Sanitation held in Brussels, in February last. The translation is by

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LITERATURE

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Dr. E. Hertoghe, of Anvers, Belgium, well known as an authority on the internal secretions, and especially on the thyroid gland. The present edition has been thoroughly revised, all typographical errors eliminated and brought up to date in every respect. Much stress is rightly laid on the need for early diagnosis and prompt measures of treatment. Dr. Bainbridge holds that surgical intervention, whenever possible, is the most effective mode of treatment, but he rightly lays great emphasis on the necessity for the surgery being skilful and the surgical technique being careful in the extreme. He points out that negligence in these essential details may render on operation more harmful than otherwise, as the disease may be spread more rapidly. He refers favorably to the beneficial effects of radium, in cases suitable for its use, and makes a very fair and conservative statement with regard to the value of X-rays of the newest type in the treatment of malignant disease. A notable feature of the book is the last part of it, which is concerned with the education of the public. All those who have had experience of malignant tumors, or at any rate the majority, are agreed that in order to treat them with even a measure of success, they must be diagnosed in their early stage, and treated at once, by the knife. But the public must be educated to consult a medical man as soon as symptoms show themselves which might be cancer. Moreover, the average medical practitioner has not had sufficient experience of cancer to be able to diagnose with any accuracy and therefore, to some extent, the medical profession itself is in need of education in this direction. Dr. Bainbridge suggests ways and means whereby both of these objects may be accomplished. The author is unalterably opposed to the treatment of malignant disease by medical methods or by a dietetic regime. The book provides a full and careful presentation of the cancer problem as it is to-day and should be useful to French-speaking medical readers.

Dr. J. Hall Edwards, of Birmingham, the well-known radiologist, a few days ago was presented with the bronze medallion of the Carnegie Hero Trust Fund and an annuity. This medallion in civil life may be compared with the Victoria Cross in military life as a distinction. In Great Britain Dr. Hall Edwards has been a pioneer of the X-rays. As a result of continued and prolonged exposure to them his left arm and right hand were so badly injured that it became

Perhaps it is coffee that increases their "nervousness"

SUCCESSFUL treatment of the neurasthenic is one of the perplexing medical problems.

In most cases tension-producing drugs are contra-indicated as generally any agent that increases tension tends to increase nerve irritability.

There is now no doubt in the minds of many careful clinicians, but that caffeine tends to raise blood pressure, increase nerve irritability, induce insomnia, disturb digestion, and predispose to under-oxidation disorders.

With these facts in mind, may it not be well to instruct your neurasthenic, and your blood tension cases to stop tea and coffee for awhile, and drink rich delicious Instant Postum.

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necessary to amputate both. Dr. Hall Edwards was radiographer to the Birmingham General Hospital for twenty years; in the South African War he was radiographer to the Imperial Yeomanry and in the recent war he acted in a like capacity to four of the largest military hospitals in this country.

A Provincial Board of Education

To the Editor of the "Canadian Practitioner."

A Provincial Board of Education would provide a very much needed "link" in our educational system. We have the "Department of Education," under a Minister of the Crown, and the various Boards of Education, and Trustee Boards elected by the people. These are democratic institutions, as they are directly responsible to the people. Between these we have semi-despotic bodies, and personages, e.g., governors, councillors, chancellors, presidents over our colleges and universities. These bodies and persons are not elected by the people, but by their "high-brow peers," and, in street parlance, they are very carefully "hand-picked." These people challenge the highest respect, for they are refined, honorable and self-sacrificing, and yet it is against their methods we find the fiercest criticism. We have only to glance at the press—lay and medical—to see evidence of much perturbation—without and within the walls of our Provincial University.

The occurrence—ever and anon—of these evolutionary, and revolutionary outbursts is becoming a serious menace to the reputation of this great "seat of learning." There is nothing to kindle inspiration, or to arouse enthusiasm when students feel that injustice has been done to some members of the teaching staff, for whom they have great respect. A "Joseph" may be exalted, deposed and re-instated with Egyptian celerity.

The proper remedy for the present untoward conditions in the life of the University would be the substitution of a democratic form of government for the present semi-despotic one. The Province would be divided into ten, or fifteen electoral districts, each of which would elect a member of an "Ontario Board of Education." These elections could be held at the same time as the municipal elections, and the term of office be for three, or five years. This would give every elector a "voice" in the management of the university.

The question will be asked, "How could such a body as this select the teaching staff of a university." In the same way as the Toronto Board of Education selects "specialists"

DR. JUNIOR: "Discovered something new, Doctor?"

DR. SENIOR: "New to most of us—yes. I have been confirming, by actual laboratory experiment, a statement made in Lewkowitsch's Book, Chemical Technology and Analysis of Fats and Waxes (page 245), which shows that heat is generated and practically available, in a mixture of 42 parts Water and 58 parts of c. p. Glycerine."

DR. JUNIOR: "Of course we know that all chemical action produces heat——"

DR. SENIOR: "Exactly. But many of us would think a mixture of Glycerine and Water a simple mechanical combination; never realizing that there is chemical combination also."

DR. JUNIOR: "Well, is the degree of heat of such amount as to be of use, therapeutically?"

DR. SENIOR: "Nine degrees in a few hours is something, eh?"

DR. JUNIOR: "Rather——yes."

DR. SENIOR: "Now, I understand how Antiphlogistine, which contains a large amount of c. p. Glycerine, not only retains heat but actually generates heat."

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for the "heads of departments" in the Technical, and in the High Schools. The Technical and High Schools have the Principal of the former, and the Senior Principal of the latter present at every meeting of the Board, and when an appointment to any position is to be made, the qualifications of all applicants are submitted to these two, who inform the Board in respect to the merits of each candidate. These men have no vote, so the Board alone is solely responsible for the appointment. The staff of the university would be represented at every meeting of this new "Board" by the President, the Chancellors, and other high officials. This Board would have the advice of these most highly qualified "specialists" on all matters pertaining to the management of the university, but the Board alone would be directly responsible for everything that was done, and have to bear all the criticism, for the reputation of the individual members of the staff would be a sacred trust.

The "Board of Governors" of the University would constitute the "University Advisory Committee" of the "Ontario Board of Education." Every unit of the highly specialized energy, knowledge, and experience of this committee could be conserved by transmitting it—scientific phraseology—along DEMOCRATICALLY insulated wires to its proper destination. The conditions under which the "Governors" have now to exercise the above potentialities are such that when they are brought into action they seem to come in contact, almost immediately—from want of proper DEMOCRATIC insulation—with a lot of very inflammable material, lying about loosely. Many rather violent explosions have been produced by these untoward contacts. The echoes of these have been caught up by the press—medical and lay— and transmitted all over the Province. These unseemly noises are impairing the functions of our Provincial University, and, under its present form of government, there are no means of suppressing them. The President of the University, and the "Heads of Departments" under the present system of government occupy very vulnerable positions. A democratic "Board of Education" would have to face all adverse criticism, and if it could not—in military parlance—"line up its enemies in front of a stone wall with a firing squad," (the Board) facing them, its members would meet the same fate at the next general election, that recently overtook several members of the Toronto Board of Education—in street idiom—"get fired."

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Columbia University is one of the most richly endowed and the largest of the universities, and its school of medicine has been one of the most progressive in adopting new laboratory courses and enlarging its curriculum. In his annual report as president of the university Dr. Nicholas Murray Butler presents some important matters in regard to medical education. "The true aim of the medical school," says President Butler, "should be to give instruction in fundamental principles and methods, to bring the students into contact with realities, to train him in habits of observation and inference as to physiological and pathological phenomena, and to give him knowledge of where to look for the additional or specialized information that he may need before his own experience has sufficiently widened and deepened to bring it to him."

President Butler realizes that the purpose of the medical school is primarily to train physicians, and not scientific investigators. "It would be a sorry day," says Dr. Butler, "for the public health and for the public satisfaction if the physician of large, practical experience, wide human sympathy and keen insight into human nature were to yield his place to the expert with the microscope and the test tube. The scientific aspects of medicine must not be permitted to override its human aspects."

Dr. Butler has put into words a feeling which is prevalent throughout a large portion of the medical profession. The true province of the physician is to heal the sick. Under the rapid development of specialism in medicine this function has been lost sight of in some of the larger medical schools, which train scientific investigators instead of physicians. There is a need for scientific investigators, but the crying need is for men of broad, medical education whose senses and powers of observation, as well as their minds, have been carefully trained; men who depend mainly on their own trained powers of observation and deduction rather than on the differential blood count, the sphygmographic tracing of the electrocardio-

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gram, or the findings of the test tube. All of these aids to diagnosis are of value and should be made use of, but none of them can take the place of the trained and acute observer.

The leaders in medical education have made the mistake of trying to combine the laboratory specialist with the general practitioner, and as a consequence the public has suffered and is suffering from a dearth of doctors.—*New York Medical Journal and Medical Record.*

Tremors in Children

(Nederland. Tijdschr. voor Geneeskunde, 1920.)
J. C. Schippers.

According to Peritz, tremors occur relatively seldom in children. Pelnar distinguishes tremor from athetotic and choreiform movements and defines it as consisting of small involuntary movements oscillating round a position of equilibrium; it is fairly regular, and is localized in a joint or a group of cooperating joints; it causes no fatigue and does not interfere with movements. As to its nature, he thinks that in the static innervation of skeletal muscles we have to do with an oscillating and undulating tetanus; the oscillations have a frequency of fifty per second, the undulations one of eight to thirteen waves; only the latter can be registered by a sensitive apparatus; they are really the true tremors; in static innervation they have the oscillating intensity of a continuous tetanus. Kollarits regards tremor as a sequel of a disturbance of co-ordination of agonistic and antagonistic muscles; since even during rest a certain activity of muscle takes place, there is thus no particular difference between trembling during rest and in movement; the cause of the tremor must be looked for in the cerebral cortex. Pelnar gives the chief kinds of tremor thus: Physiological tremor in healthy persons, emotional tremor, adynamic tremor, tremor from cold or trauma, tremor from poisons, as alcohol, nicotine, ergotine, mercury, the thyroid gland, etc., uremic and eclamptic tremor, neurotic tremor, tremor in Basedow's and in Parkinson's disease, in organic nervous diseases, hereditary and familial tremor, and tremor from commotio.

Schippers here records five cases of various kinds of tremor in children: (1) hereditary familial tremor in a boy of eight; fine, quick tremor in arms; genitalia large for his age, but no sexual precocity; the family history showed

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the true nature of the tremor; (2) two cases of acute cerebral tremor in infants under two years of age; this kind of tremor is sometimes of unilateral distribution, sometimes limited to arms or legs; there may be lively reflexes, spastic signs, pareses, ataxia; once facial paresis and nystagmus; the tremor usually follows an acute infection, as pneumonia, measles or intestinal catarrh; it lasts for from two to twelve weeks and is usually of good prognosis; (4) a sporadic case of cerebrospinal meningitis of a two months' infant, with tremor, and (5) an infant of twelve months in whom tremor of arms on emotion was present; lumbar puncture showed a meningitis. Necropsy showed a ventricular meningitis and great hydrocephalus. Tremor as an early sign of meningitis is seldom seen, but Hutinel regards prodromal tremor as a diagnostic sign of meningitis in children. Schippers concludes from his observations that tremors in children, when nonsymptomatic, are of the greatest importance; their presence should lead us to a careful search for other signs of central nervous system affection, and eventually to lumbar puncture.— *The Journal of Nervous and Mental Disease.*

Miscellaneous

The Pharmaceutical Chemistry of Silver Proteids

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John Hudson Storer, M.D., of the Community Hospital, New York City, in an article on Diabetic Ulceration, which condition he characterizes as one of the most difficult problems the doctor has to deal with, said, "Ulcers occurring in the latter stages of Diabetes Mellitus are impossible to cure, but the patient should have relief from the intense agony, and naturally calls upon the doctor to do that which he himself knows to be next to impossible.

These ulcerations usually occur on the lower extremities, more often on the feet as a result of the breaking down of the gangrenous tissue, and even though this condition occurs late in the disease, every effort should be made to relieve the suffering caused thereby, delaying for a time at least the administration of the inevitable narcotic, first by mouth, then as the disease progresses the dreaded hypodermic, ending finally in the first amputation.

In our limited armamentarium we have little to make this picture any the less harrowing.

Not going into the internal treatment of this disease, I will confine my remarks to the external or palliative aspect of the condition.

Our field is very limited, but there are a few suggestions that I have found to be of considerable benefit and afford much relief and comfort to the long-suffering patient.

If the ulcer is not inflamed, cauterize or remove with a sharp spoon all foul granulations or debris. Dress with adhesive zinc plaster or zinc and iethyol ointment, or with plain mutton suet. I also strongly recommend the use of Antiphlogistine, as it relieves pain, increases circulation, and promotes granulation. In some cases relief is had by using hot compresses of witch hazel or boric acid solution."

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Original Communications

Disseminated Sclerosis*

By Julian Loudon, B.A., M.B., M.R.C.S., F.A.C.P.
Chief Physician, St. Michael's Hospital, Toronto; Clinician, University of Toronto.

I am reporting two cases from our medical wards to illustrate some of the usual clinical features of disseminated, insular, or multiple sclerosis. The first case is that of a labourer, age 42, born in England, and complaining of numbness in the feet and hands. During the past six years he has been in several sanitaria for pulmonary tuberculosis, but his chest condition is now quiescent. About six months ago he had an attack of so-called influenza which was followed by a feeling of general weakness with numbness in the feet and hands. Since then there has been difficulty in holding the urine, transient diplopia, and transient speech disturbance. When examined by me on March 20th, he walked with a spastic gait and dragged the right foot. The pupils reacted normally. The optic discs were normal except for pallor of the outer third: nystagmus absent. There was a marked intention tremor of the hands; left grip stronger than right. Abdominal reflexes were absent; tendon reflexes brisk. Extensor response of the great toe was elicited on both sides, especially on right; ankle clonus absent. Rombergism was present, but not marked. No objective sensory changes were noted. The Wassermann blood reaction was negative; analysis of urine normal.

The second case is an unmarried woman of 43, who was admitted to the isolation wards on February 22nd inst. with severe erysipelas of the face, neck, and arms. When the erysipelas had subsided, it was noticed that she walked with a

* Reported at St. Michael's Hospital Clinical Society, May 6th, 1922.

rather spastic gait and had a tendency to drag the right foot. The speech was somewhat jerky. The mentality was dull and the reactions slow. On questioning the patient it was found that there had recently been attacks of transient diplopia, but the stiffness of the legs was said to have been present for some years. On examination the tongue protrudes slightly to the left. Lateral nystagmus is present; no changes in the optic discs. There is no tremor of the hands; grips equal and strong. Abdominal reflexes are absent; knee jerks brisk; no ankle clonus; plantar reflexes normal. There are no bladder symptoms. Wassermann reaction is negative; urine normal. Systolic blood pressure is 130 and diastolic 85.

You will note that the symptoms and signs in these two cases do not closely correspond with the usual text book descriptions. When I ask any of the studious undergraduates in my clinics to give the signs of disseminated sclerosis, the almost invariable reply is scanning speech, intention tremor, and nystagmus. These are Charcot's triad of signs, and by emphasizing these Charcot did much to call attention to this common disease. We have, however, reached a stage in the development of our knowledge of disseminated sclerosis, where insistence on the presence of these signs would lead to many errors in diagnosis. When one considers the multiplicity of lesions which may be present, it is easy to understand the variability of the clinical signs and symptoms.

The signs which are most likely to be present are those resulting from disease of the most vulnerable tract. This, of course, is the pyramidal tract, and the signs by which it shows disease are spasticity, exaggerated tendon reflexes, and the extensor type of plantar reflex (Babinski's sign). These, therefore, are the commonest signs of disseminated sclerosis and indicate that the disease is probably present, if they have gradually developed in a young adult who is not the subject of syphilis or Pott's disease. Accompanying, and often preceding these signs may be bladder disturbance and loss of abdominal reflexes. After such developments have occurred, it is common to find some of those signs emphasized by Charcot, as well as ataxia, ocular disturbances, changes in the optic discs, mental symptoms, and sensory changes.

Before leaving the discussion of symptoms and signs, I wish to impress on you the importance of remembering the very striking way in which these may, temporarily, improve, so that one may be misled into making a diagnosis of functional derangement. The disease is invariably fatal and runs

a course from five to ten years,—death often resulting from an intercurrent infection, such as pneumonia, cystitis or pyelitis.

I do not propose to go into an exhaustive discussion of the differential diagnosis. The chief diseases which may be confused with disseminated sclerosis are hysteria, neurasthenia, brain tumour, tumour of the spinal cord, compression paraplegia, syringomyelia, paralysis agitans, amyotrophic lateral sclerosis, subacute combined degeneration of the cord, polyneuritis, and cerebrospinal syphilis.

The cause is unknown. It used to be held that it was due to a congenital weakness of the nervous system, but is now usually thought to be due to a toxin of bacterial or metabolic origin. It has frequently been noted to follow upon one of the specific fevers, or upon influenza as in our first case. It affects the sexes equally. The age of onset is usually between 15 and 40. Recently certain workers have sought to demonstrate a spirochaete as the causative agent, but such observations require confirmation.

The pathology is unique. There are patches of sclerosis scattered throughout the nervous system. These patches vary in size and consistency and are very sharply defined. The disease is not confined to any tract and cannot be grouped with the so-called system diseases. Both white and gray matter are affected. There is a wide divergence of opinion as to the interpretation of the pathological changes, and about the only matters not in dispute are that the myelin sheaths degenerate out of all proportion to the axones which persist, and that the neuroglia shows a marked tendency to proliferate. It is thought by most to be a primary myelin degeneration with secondary neuroglial overgrowth.

The treatment is symptomatic. The bladder should be watched. Acid sodium phosphate and hexamethylenetetramin may be employed when indicated. Potassium iodide, arsenic, and mercury have appeared to produce beneficial effects, but are of doubtful value. A specific remedy has yet to be discovered and will probably not be found until we are sure of the causative agent.

Retro-Peritoneal Rupture of the Duodenum*

By W. H. Harris, M.D., F.A.C.S.,
Surgeon, Grace Hospital; President, Academy of Medicine, Toronto.

Acute symptoms of intra-abdominal injury or disease receive the most careful attention of the attendant. At best, it is difficult, and it is often impossible, to make a positive diagnosis from the important diagnostic points that are available. The symptoms produced by the blow that merely knocks out and the force that does irreparable damage to a viscus underneath, in the initial stage so closely resemble one another that a definite conclusion as to the seriousness of the injury sustained is impossible. When and where uncertainty exists, after a careful consideration of the facts available, the most probable pathological condition that will account for the symptoms found is the best we can do, supplementing our findings by surgical or non-surgical treatment, as our judgment dictates.

It is with retro-peritoneal duodenal rupture that we will here deal. These injuries usually happen as the result of the violence of blunt force and leave very little visual evidence of abdominal injury. Where an abrupt dull drive or squeezing occurs on the belly wall, sections of the bowel may escape injury on account of their mobility but the fixed duodenum is caught and crushed between the object producing the injury and the lumber spine.

The following histories are given as illustrations:

Mr. T. R.,

On May 14th, 1921, while playing football, patient was jammed between two other players. He was temporarily "winded" but continued throughout the game. He was brought home with other players on a motor lorry, and went to bed. He was restless all night and at 4 a.m. summoned a doctor.

On May 15th, he complained of pain in the right upper quadrant of the abdomen and over the right kidney posteriorly. He had vomited twice and his bowels had moved. He appeared in distress, temperature normal, pulse 108, respirations slightly increased, there was an ill-defined brush burn lateral to the gall bladder area with tenderness though no

*Read before the Section of Surgery, Academy of Medicine, April 18th, 1922.

rigidity, tenderness over the right kidney posteriorly and a general slight tenderness over the whole abdomen. There was no evidence of any fluid in the abdomen and deep pressure did not distress him. The diet was restricted to fluids and a hot water bag applied to the right side.

On May 16th, his condition was practically unchanged, he had slept well.

On May 17th, patient had been restless through the night, temperature normal, pulse 108, respiration slightly increased, facial expression anxious. He complained of being unable to lie in any position for more than a few minutes. Some dullness found over the base of the right lung and a few crepitant râles on deep inspiration. There was dullness on percussion to the right and below the gall-bladder with noticeable rigidity in this area and impaired resonance on percussion. In the evening he felt much better and was able to move about or sit up in bed without much distress.

On May 18th, he had not slept during the night, he was not so restless as on the previous morning but appeared drowsy and toxic. Temperature normal, pulse 110. Abdomen quite rigid in the upper right quadrant with some general slight rigidity. There were no definite signs of free fluid beyond the dullness in the right upper quadrant. He was admitted to hospital at 2 p.m. where I saw him during the afternoon. White blood count normal, and urine negative, pulse 120, whole abdomen rigid with dullness particularly in the right upper quadrant and flank. Patient drowsy though quite able to discuss his condition. Operation began at 6.15 p.m., gas and oxygen and some ether being used. On opening the abdomen, some free fluid and some pus were encountered but no bowel contents. The posterior parietal peritoneum presented a slough-grey appearance and was crepitant on palpation. On opening this surface duodenal contents were found. These had exuded from a rent in the duodenum about the junction of the descending and tranverse portions. No attempt was made to close the rupture, drainage was resorted to and the wound closed. The patient died the same evening.

Case No. 2.

J. N., Swimming Instructor.

Past History:—has always been in the best of health.

Present Illness:—On Saturday evening, August 19, he was starting his motor-cycle when it plunged forward and shot into a fence. Mr. N. hung on to the machine and was struck in the abdomen by the right handle bar against which

he collapsed and was carried into the Y.M.C.A. His face was blanched and anxious, he was suffering intense abdominal pain and wished only to be left alone. The only wound visible was a slight abrasion at the umbilicus. The patient was taken to Grace Hospital.

On examination after admission abdominal tenderness was marked and the upper right rectus was quite rigid. Fluids were withheld and an ice-bag applied to the abdomen. On the morning of the twentieth he vomited a large quantity of greenish fluid after which he was more comfortable. By noon of that day pain in the abdomen returned, the abdominal muscles became very rigid and his expression was anxious, pulse 76, temperature 100. After consultation, 4 p.m., it was decided to open the abdomen which was done that afternoon.

A right rectus incision was made and the sheath and the muscle were found to be torn. The peritoneum was intact, there was a congested appearance of all the abdominal contents. There was some fluid in the cavity and a blood-stained effusion into the mesentery. The terminal ileum, appendix, caecum, ascending colon, as well as the posterior parietal peritoneum were grey in colour and covered with lymph. On exposing the buried duodenum by opening the peritoneum beneath the mesocolon the contents of the alimentary tract poured out through an opening in the gut at the point where it turns from a descending to a transverse position. All but a very small piece of the circumference of the bowel was torn across. The torn edges were seized with forceps, approximated and sutured and overstitched. The peritoneal cavity was swabbed free from intestinal contents and drainage tubes inserted, one in the neighborhood of the wound and one in the pelvis. The incision was closed in the usual way. The patient went along well for six days, when the discharge from the upper tube became free. During this time the bowels had moved well with enemata, nutrient enemata had been retained and small quantities of food had been taken by mouth. On August 30th, this drainage became greenish in color and very irritating to the skin. The same day the lower wound discharged colonic faecal matter from a secondary perforation. The patient refused nourishment, what was given by mouth came out through the upper opening and fluids given per rectum came out through the lower opening. On September 1st, patient was given a transfusion of 600cc. of blood and next morning a rubber catheter was put into the jejunum under local anaesthesia about twelve inches from the duodeno-je-

junal junction. An attempt was made to conserve the discharge from the duodenal fistula and introduce this with other fluids through the catheter into the jejunum. Interstitial normal saline given twice daily. Death on September 7th.

Slides.

No. 1. Abdominal part of digestive tube and its attachment to the primitive or common mesentery. Human embryo of six weeks.

No. 2. Diagram to illustrate a stage in the development of a digestive tube and its mesentery.

No. 3. Diagram to illustrate a further stage, in the development of the digestive tube and its mesentery.

No. 4. Final disposition of the intestines and their vascular relations.

No. 5. Diagram to illustrate the retro-peritoneal aspect of the duodenum from a lateral sagittal median plane standpoint.

No. 6. Diagram to illustrate the first portion of the duodenum with its peritoneal covering removed.

No. 7. Diagram to represent the buried duodenum with the posterior parietal peritoneum intact.

No. 8. A sketch, reproduced from the B.M.J., of a specimen from the Museum of the Royal College of Surgeons of England. "John Copaldish kicked by a horse just above the navel on the 24th day of April, 1821."

General Comments.

Neerwein in 1907,[1] collected 64 of the published cases of duodenal rupture, including one of his own. In 7 of the 29 operated on the rupture was not found. Two cases recovered.

Of the 23 cases of duodenal rupture reported by Berry and Guiseppi in 1908, four were retro-peritoneal; of 132 cases of bowel rupture reported by the same authors and gathered from ten London hospitals over a period of years, 18% were ruptures of the duodenum and 25% of the duodenal ruptures were retro-peritoneal. Death followed in all their cases and in 7 the rupture was overlooked at operation.

In England, up to 1908, only one case, that of Godwin, had recovered.

As regards the causative traumatism of retro-peritoneal rupture there are apparently no special features as compared to the ordinary factors productive of subcutaneous duodenal lesions in general.

It was formerly assumed that perforations of the anterior duodenal wall resulted in intra-peritoneal rupture, while perforation of the posterior duodenal wall resulted in retro-peritoneal tears. This is not invariably the case according to Schumacher, who found in his compilation of purely retro-peritoneal lesions, that no less than four of the perforations were situated on the anterior wall, eight times the posterior wall was concerned, and twice the lateral wall. Complete retro-peritoneal rupture was reported by Kranz. In 1910, Schumacher reported a personal case and collected twenty-three others from various sources. Sixteen were operated upon; in six the injury was missed and in two the operation was successful.

Miller (Annals of Surgery, Vol. 44, No. 5.),[3] reported a personal case and also presented an exhaustive study of cases collected from the literature. In these cases the injuries that caused the lesion were as follows: "7 were crushed between a heavy fixed and a heavy moving object, usually a wall and a waggon; 7 were struck on the abdomen by an article such as a rake handle, a board or a heavy piece of iron; 6 were run over; 6 were kicked, notable in this group being two in which the injury was caused during a football game by a player receiving a kick from another player's knee. In one instance the lesion was produced by a fall on a fixed object, and in another by a horse falling on a rider." Miller's personal case was kicked by a mule and ran an indefinite, negative course for ten days before the significance of the injury was established. In 8 of Miller's cases the rupture was missed and in 3 the operation was successful. He collected the results of 45 cases operated on and found 5 recoveries—a mortality of 89%. No case recovered where the operation was delayed beyond 24 hours.

Report from the Upsala Surgical Clinic,[4] included eleven cases of intra-peritoneal intestinal rupture and one case of retro-peritoneal rupture of the duodenum. The condition in this case was not recognized at the time of the first laparotomy; later on, another laparotomy was done, with suture of the duodenum. On the ninth day after the accident, the patient died from retro-peritoneal phlegmon; the site of rupture in the duodenum had re-opened.

In fourteen of twenty-nine cases, collected by Söderlund, which were operated on, the site of the rupture was not discovered at the time of the operation.

One of the nine cases of subcutaneous traumatic rupture of the intestine reported by Sträuli[7] from the Münsterhügen (Switzerland) Hospital, service of Brunner, 1896-1914, concerned a man of twenty-three years who suffered a severe contusion between a carriage and a telephone pole. Laparotomy, within the first hour after the accident, showed a large rupture of the liver on the lower surface of the left lobe. Death followed five hours later. The autopsy showed no intestinal perforation, from the duodeno-jejunal juncture as far as the rectum. The duodenum, where the tranverse portion passes in front of the vertebral column, presented a perforation orifice about 4 cm. in diameter, with ragged and discolored margins. Intestinal contents, interspersed with blood, were found in the surroundings, in a rather extensive retro-peritoneal circumference. There was no statement concerning incipient peritonitis.

Symptoms.

A history of a non-penetrating abdominal injury must always be considered as a possible cause of intestinal rupture, especially if this is the result of a blunt object forcibly applied. Retro-peritoneal duodenal injury may be suspected when delayed symptoms of suppurative effusion follow an upper abdominal blow or crush. The fundamental difference between the initial and delayed symptoms of extra-peritoneal and intra-peritoneal gut ruptures is that in the latter their expression is earlier and more pronounced. Apart from the retardation of the acute symptoms in their time of onset, the symptoms of bowel rupture within and without the abdominal cavity are very much alike. One of the more unusual symptoms, where a gas-infiltrated peritoneum has followed a ruptured viscus, is the transmission of the cardiac and respiratory sounds, so that they can be heard as readily throughout the abdomen as they can over the chest-wall. Another symptom is post-cervical pain, which can be elicited by abdominal pressure. Pressure on the right upper abdominal wall produces pain in the neck on the right side posteriorly and pressure on the left upper abdominal wall produces pain in the left side of the neck posteriorly. This is the result of diaphragmatic irritation of the phrenic nerve distributions.

Thoracic injury or disease is often accompanied by distress which is referred to the abdominal cavity.

In considering the symptoms of intestinal rupture, our first duty is to exclude injury of the chest.

The symptoms of bowel rupture are local and general. The most important local symptoms are abdominal pain, tenderness on pressure of the abdominal walls and rectum and muscular tension of the abdominal coverings. The most tender point is usually where the original injury was sustained. The pain is more diffuse in its manifestation. The principal general symptoms consist of shock, increased frequency of the pulse and rise in temperature. The liver dullness may be decreased or absent and the flanks on percussion may give evidence of intra-peritoneal fluid. The board-like hardness, so characteristic of ruptured gastric or duodenal ulcer, as well as the scaphoid retraction of the upper abdomen, are not marked features of rupture due to injury.

It is obvious that retro-peritoneal rupture of the intestine can only occur in the duodenum and in certain parts of the large bowel as all the other hollow viscera of the abdomen have true mesenteries.

The seat of a retro-duodenal rupture of the intestine is usually the descending or the transverse duodenum.

In the cases here reported we found a peritoneal cavity containing some free fluid, sero-purulent in character. Failure to readily locate an intra-peritoneal lesion is momentarily disconcerting, leading one to think that the tentative diagnosis of ruptured intestine will not be substantiated. An exploration of the parietal peritoneum posteriorly presents to the eye an abnormal appearance. In our cases, the clear pinkish-grey color, usually characteristic of this serous surface, was replaced by a dark, slough-grey lining on the posterior peritoneal aspect, spotted in areas by slight hæmorrhages. The extensive area occupied by this discoloration of the peritoneum precludes the initial direct traumatism as the causative agent.

To the hand a sense of crepitation is imparted. This feeling of a gas-infiltrated tissue gives the clue that leads one to explore the most likely source of retro-peritoneal emphysema, the buried duodenum. This valuable sign should not be overlooked. Emphasis must be laid on any helpful symptoms because the lesion has been missed so frequently. The recognition of retro-peritoneal tactile crepitation is the most likely single factor to aid us in arriving at the seat of the injury. Failure to find a serious disability that one feels sure does exist is discomfiting. The early recognition of the injury sustained is difficult for a search of the literature available discloses that we look almost in vain for evidence of a correct

pre-operative diagnosis. In one of Berry's cases a correct diagnosis was made and confirmed at autopsy. No operation was performed.

The effusion is most marked early in the region of the transverse mesocolon, spreading downwards from this point over the right kidney and into the root of the mesentery. Further in its progress it may continue behind the ascending colon into the pelvis. The extravasation has been known to travel laterally along the ribs and cranially along the great vessels into the mediastinum. In severe cases the effusion may cross to the left side and involve the whole retro-peritoneal area.

Where the rupture is retro-peritoneal, extravasation to some degree is constant, due to the escape of blood and duodenal contents into the tissues. From the delayed onset of serious symptoms it may be inferred that the peritonitis occurs more slowly in cases where the parietal rather than the visceral side of the peritoneum is exposed to the intestinal contents with their resultant infection and irritation. While the symptoms are less acute and retarded in their appearance, infective cellulitis and peritoneal inflammation will in time demonstrate the significance of the injury. The presence of the extravasated digestive ferments acting in their antiseptic capacity may so influence bacterial growth that local and constitutional symptoms develop slowly. The initial shock of the sudden general diffusion of blood, gastric or duodenal contents, over an area of the peritoneal surface is very pronounced. The intensity of the symptoms is modified by the quantity and quality of the material diffused but intra-peritoneal extravasation produces symptoms so acute that early diagnosis and early operation result. The delayed symptoms and right upper quadrant localization which characterize retro-duodenal rupture are due to the structural imprisonment of the extravasation. Kanavel[8] believes that the absorption of toxic material from this effusion, other than that of bacterial origin, is an important factor in the high mortality that follows extra-peritoneal rupture of the duodenum. This accords with the clinical observation that high bowel obstruction from any cause is attended by a rapid fatal absorption of intestinal poisons.

Ellis[9] emphasizes the absorption of a proteolytic ferment as the prime agent in determining the marked toxicity that is always noted. This poison, he claims, is generated from the mucosa of the small intestine, chiefly from the duodenum,

and that it is manifestly excreted, partly into the lumen of the bowel, but mostly into the lymph stream. Van Beuren[10] stresses dehydration as an important factor in determining the rapidly fatal result so often noted in upper abdominal lesions of this class.

According to Berry,[6] rupture of the intestine, *per se*, does not necessarily produce shock. Shock is often present, but it is usually due, either to concomitant injuries, or, rarely, to the sudden escape of large quantities of intestinal contents. A rupture of the intestine is not usually attended in the first few hours after the accident by the escape of any considerable quantity of gas or other intestinal contents.

"It has been shown both by experiments on animals and by clinical observation that the immediate effect of any severe injury to the intestine is usually a contraction of the bowel in the neighborhood of the lesion. This contraction tends, for the time at least, to prevent further extravasation."

Cope states,[6] "It is unfortunately true that there is no one symptom or sign which constantly proclaims the presence of intestinal injury. There are two indications, however, at least one of which always serves to point to the peritonitis which sooner or later supervenes on the rupture of the intestine. The first is persistent pain and the second is progressive change in the pulse.

The pain is shown in four ways. The facial expression may betray it, superficial or deep pressure on certain parts of the abdominal wall may elicit it, or the patient may openly or spontaneously complain. Finally rectal examination may show that the peritoneum is tender. Importance must also be attached to any shifting of the site of the pain. An epigastric blow followed by hypogastric pain is very suggestive of a ruptured viscus."

Treatment.

When we realize that a retro-duodenal rupture of the duodenum has occurred, the seriousness of the situation is apparent. Anatomical, structural and physiological difficulties at once confront us. Anatomically inaccessible on account of its buried retro-peritoneal position and structurally so friable, it is with difficulty that satisfactory repair work which will secure the continuity of the gut can be accomplished. Physiologically, it is the reception reservoir of the gastric contents, bile and pancreatic juice.

Traumatic rupture of the peritoneally accessible portions of the gut requires similar treatment to a perforated ulcer—an infolding of the gut with or without a gastro-enterostomy. The structural and anatomical defects of the retro-peritoneal duodenum can sometimes be overcome by suturing the severed ends and adding a gastro-enterostomy.

When the position of the rent is such that a blocking is possible, temporary success may follow such an operation if a gastro-enterostomy is added. In a case treated as stated and reported by Moynihan[7] the patient lived one hundred and four days. When the rupture is below the ampulla this procedure is not satisfactory as the duodenal contents are condemned to reach the intestine by way of the stomach. On account of the hazardous condition of these patients, a simple operative procedure such as drainage is sometimes all that should be attempted. Direct suture and drainage are liable at best to leave us with a duodenal fistula, a sequence against which it is almost impossible to guard. A duodenal fistula in itself may spell disaster unless the discharge is conserved and restored to the bowel lower down; even this does not ensure success. Apart from the tissue irritation of such discharge, especially the skin excoriation, which is accompanied by an intense dermatitis, the attrition consequent on the wastage of nutriment from a fistula in the small bowel is always serious. This nutrition loss in all small intestinal fistula is inversely proportional to the distance from the stomach. The replacing of this duodenal discharge through a tube inserted in the duodenum was undertaken in the second case here reported.

When a partial or complete severence of the retro-peri toneal duodenum occurs below the outlet of the bile and pancreatic ducts, an end to end suture seems the most suitable way out of the difficulty. Intestinal tissue minus its peritoneum sutures badly. One might consider the mobilization of the upper segment of the duodenum sufficiently to allow an anastomosis with a segment of the jejunum somewhat modifying the "Y" operation of the Roux. If this procedure is followed, the distal segment of the duodenum must either be blocked or attached to the stomach. A successful result can only be hoped for where a prompt operation follows the early recognition of the injury that has been sustained. "The important question to be decided is usually not so much, is there a rupture of the intestine, but, is there an abdominal lesion sufficiently grave to demand an immediate operation?"

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The Weapon-Salve

By William Renwick Riddell, LL.D., F.R. Hist. Soc., etc.

One of the most curious of the many curious remedies in ancient medicine was the "weapon salve," which cured not by application to the wound like all other salves but by application to the weapon making the wound. It was variously called the sympathetical, magnetical, starry salve of vulnerary ointment—in one form the sympathetical powder.

While no doubt, such magic had obtained from prehistoric times, it does not seem to have had vogue with the medical profession till the 16th century.

There were at least two schools of practice each with its own salve in different varieties, and each with its own theory of cure; these were the German school and the English.

The former had as its most distinguished member, the extraordinary physician, quack, astrologer, chemist, Theophrastus Bombastes von Hohenheim, (1493-1541), commonly known by his adopted name Paracelsus; but his prescription was not followed by all. Oswald Croll, (1560-1609), the rediscoverer of ether, a Hessian, who was a follower of Paracelsus made an improvement in his master's formula; and thereafter there were on the Continent two schools, one following Paracelsus closely, the other adopting the modification made by Croll—some of them indeed modifying even Croll's prescription.

The foundation, however, of nearly all of the German salves was usnea (from the Arabic, *ashnah, moss*). The word "usnea" is still used in botany as the name of certain lichens; this usnea, however, was the greenish moss which grows upon the human skull long exposed to the air. It was believed to be a spirituous substance and the pure quintessence of the skull. Paracelsus did not discriminate in skulls, but Croll made choice of a man who had died a violent death while Johann Hartmann (1558-1631) of Amberg and Marburg, Croll's commentator, would be satisfied only with a man who had been hanged. Croll was more sparing of his usnea than Paracelsus; he used but the weight of two hazel nuts (i.e. 1 dram) in a prescription of 13 ounces while Paracelsus deemed two ounces little enough in a prescription of 9 ounces; of course Croll's usnea was scarcer and therefore more costly than that of his master—some left out usnea altogether.

Paracelsus added the blood and fat of a man if these were available, but if these could not be obtained, he substituted those of a pig, a boar or a bear; Croll did not use these ingredients, while both used Egyptian mummy. This was ostensibly the powdered flesh of mummies of ancient embalmment but too often (it is said) it was made of the flesh of persons, not infrequently slaves, which had recently been embalmed with pitch and bitumen. Paracelsus also strongly favoured what he called "mummy of the gallows," the flesh of a man who was hanged; but this did not recommend itself to Croll.

Paracelsus added linseed oil, oil of roses or turpentine, and Armenian bole (a pale red coloured earth, astringent and styptic, from Armenia, an impure silicate of aluminum). Croll added to these earthworms' washes, the brains of a boar, red sanders (i.e. sandalwood) and the blood stone (i.e. haematite).

Croll was careful, too, to scrape off the usnea from the skull when the moon was waxing, preferably when she was in the House of Venus, and in no case when she was in the House of Mars or Saturn, and he always prepared his salve when the sun was in Libra, (i.e. in the month beginning September 23rd). Others waived all this.

The practice varied also. All, indeed, kept the salve away from the wound and all anointed the weapon if it was available. Croll's school were satisfied to take a piece of wood (especially willow or a tender spray of some tree) or something of the kind, smear it over with blood from the wound and then apply the salve to it.

In anointing the weapon, Croll applied salve from point toward hilt if the wound was deep, *vice versa* if shallow; Paracelsus paid no attention to this distinction. All directed that the wound should be washed clean and covered with a clean cloth. There was agreement that the wound should be kept cool and washed daily, but some said that the washing should be done with water, others with urine.

Croll and his followers directed that the weapon after being anointed should be bound up carefully, kept warm and free from dust and wind, alleging that if the weapon lie cold and bare, the wound will be extremely painful. Paracelsus says nothing of anything of this kind, dipping the weapon into the box of ointment without any binding up or subsequent care being sufficient in his view.

That the practice of keeping the wound clean and keeping it free from the hideous, digestive, sarcotic and epulotic salves and ointments used in treatment *secundum artem* was an improvement on the regular practice cannot be doubted. The theory, however, was fantastic according to our modern science.

First the usnea was held to contain the very spirits—the natural vital spirits of man; if the man died a violent death and *a fortiori* if he were hanged, the natural and vital spirits were carried upwards, and, not being able to get out by reason of the hardness of the skull, they combined with the animal spirits, and broke their way through the skull. Then the rain, dew, snow, and frost elaborated them into usnea which thus contained all the natural, vital and animal virtues which afterwards it communicated to the salve. Some authors called in the assistance of Mercurius Mundi, the Spirit of the World, as the actor in the formation of usnea, rain, dew, snow and frost being but agents in his hands.

Remembering now, that in the physiology of the day, there were spirits in the blood, it will naturally follow that when the blood on the weapon comes in contact with the ointment, particularly if human blood, fat and flesh be ingredients, the spirits which are in the blood from the wound by reason of sympathy join with the spirits in the ointment, take out the virtues which are in the ointment and carry them to the wound whence the blood in the weapon came. Some make the power to convey these virtues something magical, but Croll calls those all fools who consider the cure at all magical. He says that it is by a magnetical and attractive virtue (caused by the stars, in other words) that the virtue in the salve is carried through the medium of the air by the sympathy of nature and balsam of blood which is in every man, and by reason of the influence of celestial bodies. All of which is surely plain enough.

Hartmann is even more explicit. He explains that when the weapon is anointed the salt of the blood which is on the weapon by a magnetical virtue draws the animal spirits out of the ointment which two spirits by concurrence of Mercurius Mundi are thus friendly united into one. He attributes much to this Spirit of the World; it knits all things of the same kind together. Accordingly whatever advantage or disadvantage the blood congealed outside the veins receives, it is at once by sympathy carried to its connatural blood left within the veins and vice versa. Hence it is that

if the weapon be held to the fire or in the cold, the patient is at once in pain, and if he chance to eat onions, mustard or garlic, it may at once be perceived in the weapon, because those similar spirits communicate their passions one to another.

The preference for a man who had died by violence—especially by hanging—is explained equally philosophically. The dead man died full of resentment and revengeful feeling; these continued after his death and they made the spirits, and therefore, the salve, more active. The cure was, consequently, more speedy, certain and effective.

In England, Sir Kenelm Digby, (1603-1665), was the leader of his school. He had no such ingredients in his remedy (called "Powder of Sympathy"), which had been given him by a Carmelite Friar, returned from China, India and Persia; he took powdered vitriol (i.e., impure iron, or copper sulphate—from the reaction described, probably the latter, some added a little Gum Tragacanth), dissolved in rain water or if that were not available in fountain water, into the water put a rag saturated with blood from the wound, or if the blood had not dried up but the rag still wet, sprinkled the bloody rag with the powder. The rag was kept in a cool place, the water of the powder renewed from time to time; or the powder might be applied to the weapon with blood still upon it, so long as it was not too much heated by the fire.

Digby who was a man of great ability and well abreast of the science of his day, thought that the light in the air struck off atoms from the blood on the rag or the weapon carrying with them atoms of the vitriol. And the greatest scientists then knew that there was no balm in the whole closet of nature like the sweet oil that is in vitriol. The mass of blood in the veins attracted their connatural blood so struck off in atoms by the light and these atoms brought along the curative vitriol. *Voila tout.*

Many marvellous cures were wrought by this "Powder of Sympathy" so surgeon and patient thought, the real agency being Dame Nature, herself, left undisturbed to do the work she only could do.

Modern aseptic surgery is just Paracelsus', Croll's and Digby's treatment without the vulnerary ointment, salve or powder. Drs. Clean and Quiet are admirable practitioners, and often require the aid but of Drs. Diet and Merryman.

The Significance of Abdominal Pain in Renal Lesions*

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There is no greater aid to a correct diagnosis than to properly appreciate the true significance of pain, and no symptom, if wrongly interpreted, will lead to greater mortification. Pain is the terror of all embryo medical men, and the frantic appeal of the patients' friends may well start a balloon ascension in our young medical friend, that may not fare well for either patient or attendant. In fact, in the concentration of one's attention on the pain, and in the desire to hastily relieve the suffering, the true significance of the pain may be entirely missed. This is especially true of pain resulting from pathological conditions found in the kidney.

Head, MacKenzie and Sherrington, have all drawn attention to the unusual distribution of referred pain and tenderness in pathological lesions of the thorax and abdomen. Head reports cases of valvular disease of the heart, in which the pain was referred to the scalp, and one case of aneurysm of the aorta, in which the patient's point of maximum pain was just above the inner cordyle of the humerus. Headache may result from a stimulus arising in some visceral organ being poured into the central nervous system, through what Head has named the vagus complex set, or the vago-glossopharyngeal complex of segments, which supply afferent fibres to the œsophagus, stomach, and upper part of the intestinal tract. Pain resulting from a renal lesion may be confined to the area representing the nerve supply of the affected organ, but in a large number of cases we find the pain referred to an area that would appear to have no direct connection with the kidney.

The kidney receives its nerve supply from the renal plexus, which is formed by nerve contributions from the solar plexus, which is connected with the tenth and eleventh ganglion through the small splanchnic nerve, and with the twelfth ganglion through the smallest splanchnic nerve. The renal plexus is wrapped around the renal artery in a mesh-work, some branches supplying the renal pelvis and ureter, but the majority of the fibres supply the kidney itself. The kidney, pelvis and ureter also receive nerve supplies from the sym-

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pathetic, the spermatic and the hypogastric plexuses. This relation of the nerve supply of the kidney, renal pelvis, and ureter, with the great intra-abdominal plexuses helps us explain the subjective symptoms so frequently referred to the abdomen in kidney lesions.

The sensitive portions of the kidney are its capsul and pelvis, and any renal pain produced must result from either increased kidney tension which stretches the capsul, or some substance which irritates the pelvis, or a displacement which drags on the renal plexus. The communication between the renal and spermatic plexuses accounts for the radiation of pain to the testicle in renal colic. Also the close relationship of the nerves supplying the kidney, with the sympathetic ganglia supplying the intestines, accounts for the nausea, vomiting, and other abdominal symptoms seen in kidney conditions. From a similar association between the renal plexus and the lumbar nerves, a renal calculus may be wrongly diagnosed as a disease of the vertebrae.

There is probably no area in the abdomen where so great errors occur in diagnosis, as in the urinary tract. The subjective symptoms complained of in lesions involving the urinary tract may so closely simulate those occurring in lesions of the adjacent organs, that they are frequently of no practical diagnostic value. Braasch says, fully one-half of the patients with lesions in the right kidney which have been observed at the Mayo clinic have had previous operation on adjacent organs, while the condition in the ureter and kidney have not been recognized.

That a correct diagnosis may be attained, it is of the utmost importance that we appreciate that, when certain impulses are carried along the afferent nerves of the sympathetic system as a result of visceral irritation, the centres in the cord of the cerebro-spinal sensory nerves are stimulated, and, as a result, the pain is referred to the peripheral distribution of these nerves. If we take a point the size of a fifty cent piece on the right side of the abdomen, midway between the ninth costal cartilage and the umbilicus, we find an area that is in direct relation to the renal pelvis and kidney, the cystic and common duct, the pylorus and duodenum. and the head of the pancreas, and any irritation of any of these organs might give rise to any type of local or referred pain.

In discussing the significance of renal pain, we must appreciate the resemblance between the urinary and biliary sys-

tems. The gall bladder, gall ducts, and duodenum, bear a close resemblance anatomically to the pelvis of the kidney, ureter, and bladder. They both contain non-striped muscle-fibres, are both hollow organs, both are subject to colic pains from similar causes, both have referred pain, and both have instantaneous relief with a remaining localized soreness.

In appreciating the true significance of abdominal pain of renal origin, we must consider the type of pain, the anatomical position of the onset of pain, and the location of any referred pain. The true kidney pain is caused by acute or chronic tension upon the kidney capsul, or inflammatory changes in the surrounding tissue. Its point of tenderness is usually in the flank or lumbar region, and the pain is of a dull boring character. The pain may be referred to the mid-abdomen, and the condition confused with a gall-bladder, or a gastro-duodenal lesion. Pelvic or ureteral pain, incorrectly called renal colic, is colicky in quality, and intermittent, resulting from peristaltic waves arising in the pelvis and radiating down the ureter. The pain is referred to the abdominal wall as a result of the stimulation in the spinal cord, of the origin of the twelfth thoracic and first lumbar roots.

Pain in the abdomen may confound pathological changes in the gall bladder and ducts, in the stomach or duodenum, in appendicitis or conditions of the large bowel, with renal lesions. In pain arising from the gall bladder the radiation is upwards and backwards, with a small area of cutaneous and muscular hyperalgesia just below the ninth costal margin. MacKenzie has reported a case of gall stones in which the only pain was in the right shoulder, being referred through the phrenic. In gall bladder pain there is the absence of tenderness in the ileocostal angle. In gastric ulcer the aggravation of the pain is incident to the taking of food, while in duodenal ulcer the immediate alleviation of pain on taking certain foods, and its subsequent exacerbation two or three hours later is found. The gastro-intestinal disturbance, which may become so marked that the patient's whole complaint is centred in the abdomen, may be reflex, or may be caused by toxic absorption, as the result of stone in the kidney becoming complicated by infection. In differentiating a chronic appendix from a genito urinary lesion, the cutaneous hyperalgesia in the region of McBurney's point is helpful. There is one point that is helpful in establishing a diagnosis, and which I have not seen mentioned in the text books. When the abdominal pain results from a definite kidney lesion there is

often a spontaneous pain in the testicle, and the testicle is very tender to pressure. The pain felt in the testicle is due to the fact that it receives a twig from the first lumbar nerve during its descent into the scrotum.

Let us consider the relation of a true renal pain to lumbago. As we have mentioned before, pain in the kidney does not occur until some stretching or irritation to the kidney capsul takes place. This pain is never paroxysmal, is of a dull aching character, with a point of tenderness to pressure at the costo-vertebral angle. First percussion over the diseased kidney, as described by the late John B. Murphy, will at once produce a sharp acute agonizing pain. If the pain is due to a lumbago it is not relieved by rest, while a true kidney pain will be relieved by rest. In lumbago the pain is related to muscular effort, and is worse in the morning. A true kidney pain is relieved in the morning, and grows worse during the day as the result of active movements, and is much increased if the body is jarred or wrenched. An additional diagnostic point in renal pain is found when the iliopsoas muscle is irritated, causing a contraction of this muscle, and pain on manipulation of the leg.

When the renal pelvis is involved we lose the aching quality of the true renal pain, and in place, have the acute intermittent lancinating colicky pain, radiating down the ureter to the testicle. The radiation of the pain may be to the anterior abdominal wall along the distribution of the iliohypogastric, ilio-inguinal, and genito crural nerves with a resulting resistance of the muscles on the affected side. On bimanual examination the abdominal wall is tender and pressure causes a sickening pricking pain.

It is impossible to accurately estimate how frequently errors are made in the diagnosis of kidney disease, as only a small proportion of the mistakes are ever reported. Cabot in a study of 153 cases of stone in the kidney and ureter, which had been treated at the Massachusetts General Hospital, reported that abdominal section had been performed in 26 cases, as a result of mistaken diagnosis. Of these 26 cases, appendectomy had been performed 10 times, of course, without benefit. Exploratory laparotomy was next in frequency with 8 cases. Nephropexy for movable kidney was performed in 4 cases. Then there was one case in which a salpingectomy was done. One stripping of the capsul of the kidney for nephralgia, and one suprapubic cystostomy.

In an endeavor to explain this unfortunate situation, Cabot analyzed the symptoms which resulted in the mistaken diag-

nosis. In 12 cases, the symptom complained of and sought advice for, was pain in the right lower quadrant. Abdominal pain entirely without colic was present in 13 cases, while in 11 cases backache was the only symptom complained of. None of these cases gave any history of renal colic or renal pain, all the symptoms pointing to some lesion within the abdomen. The text book picture of renal colic is, clinically, the exception rather than the rule. Pain may radiate upward into the shoulder, or down the thigh along the distribution of the anterior crural nerve. The pain may be in the mid-abdomen accompanied by vomiting, great prostration, sweating and even convulsions may occur. The position and character of the pain may closely resemble an attack of biliary colic. It is not infrequent to see a case of renal calculus which has been wrongly diagnosed as a scoliosis, or a tubercular disease of the vertebrae. The following case will illustrate the difficulty in diagnosis. In January, 1922, G. M., a male was referred to us. Age 32, occupation machinist. Five years ago he first complained of pain in the back, with tenderness over the first, second and third lumbar vertebrae. Pain was aggravated by jumping or riding over rough roads. Diagnosis made at this time by his physician, was lumbago. A few months later, consulted another medical man, who diagnosed disease of the vertebrae. Took several months rest and moved to the city. During the period of rest was free of pain. During past four years condition has been diagnosed as gall stones, gastric ulcer, duodenal ulcer, and chronic appendix. Present complaint is pain in the epigastrium, occurring during or immediately after meals. With the pain there is distention and belching. Pain so regular and severe patient dreads eating. Vomits three or four time a week immediately after meals, and then the pain is relieved. Has lost 10 lbs. in weight during last four months. Is getting gradually weaker, and has been unable to do any work for past 6 months. Examination showed tenderness on pressure between the 9th costal margin and the umbilicus, and also over the appendix. There was marked tenderness on pressure in the costo-vertebral angle, and fist percussion caused severe pain. Urinalysis was free of pus or blood. Stereo X-ray plates showed the kidney distinctly, which was normal in position and shape, but in the upper portion a stone was clearly seen. Barium series negative as to gastric and duodenal ulcer, and appendicitis. At operation the perirenal fat was firmly bound to the upper pole, and the capsul showed evidence of inflammatory change. On opening the kidney a stone the

size and shape of an almond was found, firmly embedded in tissue in the upper calyx. The stone was removed, and the pelvis of the kidney drained for one week. Since operation in January the patient eats freely of all foods, and has been entirely free of all gastric distress and pain. Has gained 15 lbs., and at the end of March returned to his work feeling in perfect health.

Case II. Female—aged 23, occupation, housemaid. Referred to us February, 1921. Complaint, one year previous had attack of acute abdominal pain with maximum tenderness on right side. With the attack there was vomiting and marked prostration for twenty-four hours. During attack felt some bladder irritation and frequency of urination. These attacks occurred every three to four weeks. Condition diagnosed as appendicitis, and the appendix was removed in October, 1920. Made uneventful recovery and returned to her former employment. Within two weeks of returning to work had same attack of pain with vomiting and prostration. These recurred every three to four weeks. Seen by us in February, 1921, giving the above history. On examination, the point of abdominal tenderness was one inch internal to and above the anterior iliac spine. The right kidney could be easily palpated and was tender. Urinalysis negative to blood or pus. Cystoscopic examination showed normal bladder and ureteric orifices. On ureteral catheterization and pyleography, a renal pelvis was found which received 18 c.c. of Thorium without pain and the first inch of the ureter was dilated, and at a point one inch from the pelvis, the ureter showed a distinct kink. Operation—The kidney was delivered, and the parietal peritoneum was stripped exposing the ureter for four inches, the ureter was freed, the kidney capsul slit, and the kidney suspended sufficiently high in the costovertebral angle to straighten out the ureter. Patient made an uneventful recovery and has returned to her former occupation, and has never had any recurrence of her pain.

That we may escape the many pitfalls in our interpretation of the significance of abdominal pain, the following rules should be followed. If the pain is recurring or chronic, a careful chemical and microscopic examination of the urine should be made and frequently repeated. X-ray pictures must be taken, and if a shadow is present it must be clear and unmistakable, and repetitions must show a definite correspondence in the shadow. If the diagnosis is not definite, a careful cystoscopic examination, with ureteral catheterization and pyleography, should be carried out.

Supplemental Feeding in Gastro-Intestinal Disturbances of the Breast Fed Infant*

By Rob Roy MacGregor, M.D., C.M., Kingston, Ont.

We are all agreed that, in the feeding of infants, breast nursing is paramount. It is only when this fails in its perfect functioning that other means are necessary to maintain the comfort and general well-being of the infant. Many infants, when gastro-intestinal disturbances arise, are taken from the breast and fed artificially. Many of these may be kept at the breast and their comfort and health improved by judiciously supplementing the breast feeding.

For the sake of discussion, permit me to offer a simple classification of these disturbances:—

1. Dyspepsia.
2. Constipation.
3. Vomiting.
4. Diarrhoea.

We are all acquainted with the dyspeptic breast fed infant and the frantic desire of the members of the household to have something done to relieve its distress. Some of these cases respond to the simple procedure of lengthening the period between nursings and cutting down the time at the breast. In others, the child is little, if any, improved and the loss of function of the breast may be threatened, or a child crying from hunger may confuse the result. These children are usually vigorous, greedy babies. Numerous green stools with mucous and fat curds showing are passed. In this type of case supplementing part of each nursing will give good results in the majority of cases when weaning from the breast would seem almost a necessity. It is obvious the bottle feeding must be given before each nursing, must not excite further any of the symptoms present, must tend to offset the fermentation in the intestine, and take the nip off the greedy baby's appetite. Protein milk of Finklestein and Meyer, the formula used in most children's hospitals, fat 1.5, sugar 1.5, protein 3.3, is the feeding of choice. Full strength may be used except in very young infants, where it may be necessary to use 2/3 strength. The amount given before each nursing is 1/4 to 1/3 the estimated amount of food the child takes at a feeding. Protein Milk Powder, as prepared by the Ca-

*Read before the Pediatric Section of the Ontario Medical Association, May 31st, 1922.

nadian Milk Products Co., has been used with encouraging results in cases that live outside the City, although its higher sugar content renders it less efficacious than the former. Its use may be recommended to physicians in rural districts and small towns who are not in touch with a feeding laboratory.

One finds that in the majority of cases, as the infant grows older and the mother's health is improved by full simple diet, plenty of exercise and unbroken sleep, the protein milk feedings may be gradually discontinued and uneventful breast feeding carried on until weaning time.

Three forms of constipation are worthy of discussion under this heading:—

1. Constipation due to high fat content of the food.
2. Breast milk scanty or low in solids with little residue.
3. Obstinate constipation in both mother and babe.

The first form, rarely seen in the breast fed infant, corresponds somewhat to what we know as weight disturbance in bottle fed infants. The stools when passed are hard, grey and crumbly, the so-called soap stool. The infant is usually cross and irritable and may show signs of exudative diathesis. Supplementing part of each breast feeding with a low fat cow's milk formula with malt sugar added has been found useful in combating this condition. In constipation due to breast milk low in solids, either supplemental or complemental feeding obviously will bring about an improvement and may be recommended without criticism.

Some observers are of the opinion that obstinate constipation in both mother and babe is coincident and bears no relationship to one another. It is very difficult to believe this, when the conditions are so frequently seen together and no other cause can be found to account for the trouble in the infant. Several cases of this type have come under our observation recently. Improvement in all was brought about by feeding a cow's milk mixture, with malt sugar added, before each nursing. The quantity being about ⅓rd of the estimated amount taken by the infant at feeding, i.e.—infant 5½ months old, weight 14 lbs, estimated quantity taken at nursing 7 ozs. Feed baby 2½ ozs. cow's milk formula before each nursing.

Physicians for some time have endeavored to connect two types of vomiting in breast fed infants by supplementing part of each breast feeding with thick cereal mixtures. The two types are known as habitual vomiting and rumination. Some cases of the former type may be improved by this method, provided the infant is past the age where starch in large quanti-

ties would be poorly handled by the gastro-intestinal tract. The latter condition is not a common one in breast fed infants. Whenever it does occur, if we wish to keep the child at the breast, in supplementing part of each breast feeding with thick cereal mixtures lies our only hope of improving a habit that may have very serious consequences on the nutrition of the infant.

A type of diarrhoea with a passage of 8 or 10 green frothy stools daily is seen sometimes in breast fed infants with neurotic mothers. This is believed to be due to some temporary change in the breast milk and is not an uncommon thing in this high tensioned age. It may occur during the period of menstruation or at any time the mother is worried, fatigued, or otherwise upset. It is further aggravated when the symptoms appear in many cases by the fear that she is not going to be able to nurse her infant. Whether this disturbance occurs at the menstruation period or at regular intervals, supplementing part of each nursing for a few days with protein milk preferably, or a simple cow's milk formula without the addition of sugar, not only improves the diarrhoea, but heightens the mother's confidence in her ability to successfully nurse her infant.

The role of supplemental feeding in an endeavor to correct the gastro-intestinal disturbances of the breast fed infant, while not a great one, possesses value in a certain number of selected types of cases.

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BUSINESS ADDRESS, 61 Queen St. East, Toronto, Canada

Editorial

The Ontario Medical Association

The recent Toronto meeting of the Ontario Medical Association must fairly be adjudged one of the most notable and in all respects successful in its history. The organization, after forty-two years, has gradually become provincial not only in name but in the various important activities affecting the medical profession of the province. It must have been especially gratifying to some of the original members, a number of whom happily were present, and to those who worked for many years on the new constitution, to see the body over whose struggling infancy and precarious adolescence they watched with anxious solicitude, exhibit at the respectable maturity which it has now attained, a strength and vigor fulfilling their early hopes and giving great promise of future usefulness. The President, Dr. F. J. Farley, of Trenton, and his co-workers, who devoted much time and energy to making the gathering a memorable one, are heartily to be congratulated on the success of their efforts. It is difficult to select individuals for

praise among the large number who are worthy of it. The number would include, especially the directors and chairmen of the various committees, the general secretary, Dr. Routley, and the chairmen of Sections.

The agenda for the business meeetings, including the reports of Officers and Committees, covering the widest range of subjects of professional interest, reflected not only the capacity of the men whom the Association had entrusted with the conduct of its affairs and program, but the even more gratifying fact, that they measured up to their various responsibilities. The Chairman of the Committee of General Purposes showed an acquaintance with parliamentary procedure, a readiness of decision, a tactfulness and driving force, which disposed of the mass of business coming before that important body in a most satisfactory manner, and left everyone impressed with the assurance that as President-elect, Dr. E. R. Secord, of Brantford, has fairly earned his distinction, and is worthy of the fullest support and confidence of the members of the Association.

The Association is evidently on a firm footing, and if the energy, enthusiasm, sanity and capacity to profit by constructive criticism, which have overcome strong personal differences and disagreements as to its policy and procedure in view of the interests involved, continue to actuate the official body from year to year, the future can be approached with confidence. What the Association has to fear is apathy, rather than the life and interest shown by energetic or even heated debate and constructive criticism. The continuity of policy from year to year is showing its influence in the campaign for higher standards of professional work, in dealing with the various cults seeking admission to practice without a proper education or training, and in the many other important questions dealt with by the committee in Interrelationships and discussed at the Round table.

A permanent membership of 1,600 is a wonderful accomplishment within six years since the new constitution was adopted, and the attendance of nearly 700 at the meeting was the largest in the history of the Association. The predominating influence of the profession throughout the province, exercised through the county societies, is a welcome innovation in contrast to the custom of allowing the Association to be dominated by the large cities.

We do not believe that the limits of perfection or expansion have yet been attained, and may have occasion in a later

issue to offer some suggestions, and make some criticism of details, but the gradual evolution of a strong organization, capable of doing a great service for the profession of the province, must be apparent to all.

The Problem of Cancer

Cancer still remains an unsolved problem in most respects. Its origin is unknown, and its successful treatment is often doubtful, or, at any rate, treatment of any kind must be undertaken under favorable conditions to warrant hope of success. Perhaps in prevention lies the main means of conquering the disease or of checking its spread. But how is its occurrence to be prevented? Some authorities say the incidence of malignant disease is largely due to the excessive consumption of an unsuitable diet combined with an unhealthy environment. Sir Arbuthnot Lane, writing in the special Cancer number of the *Medical Press and Circular*, April 5th last, leans to the view that a faulty diet may be the exciting cause of cancer in those predisposed. In fact, he goes so far as to say that the factors which make the difference between the cancerous and the cancer free communities are two, the chief being diet, and the other, habits of life. Sir Arbuthnot Lane traces the evolution of cancer somewhat in this wise:—long continued constipation, or inadequate clearing of the bowel contents, which results in chronic intestinal stasis, alimentary toxaemia and, if the sufferer is susceptible to cancer, eventually in that disease. Of course, the obvious preventive measures are, to live in such a way that intestinal stasis will be avoided. However, the question of effective treatment is of more immediate interest than that of prevention. Treatment may be and often is effective, if an early diagnosis is made and radical steps are taken to check the progress of the malady. Surgical intervention has been the chief mode, aided by radiotherapy, while in some cases radiotherapy is sufficient to effect this purpose. In the Cancer number referred to, Dr. W. S. Lazarus Barlow discusses the results of the radium treatment of cancer. This article is the most recent exposition, in Great Britain at least, of the science of radium treatment of cancer, and deals principally with the relationship of the radium and surgical treatment of the disease. Dr. Barlow says that moderate medical opinion may be summarized somewhat as follows: It is agreed that radium and X-rays constitute an agent more selective in action

upon malignant cells than any that has hitherto been discovered. It is further agreed that the selective action of radiations is such that it is theoretically possible for a means of their use to be discovered which will involve the malignant cells alone or predominantly, and this will establish a differentiation between the rays and the knife. It is, however, agreed that the time for this has not yet arrived, so that the proper line of treatment in malignant disease at the present time is an association of the two. It is also agreed that the relative parts played by the two partners in the association are not the same in all cases of malignant disease nor even in all stages of one and the same case. Most moderate authorities would agree that an early rodent cancer, for example, should be treated with radium exclusively, that an early carcinoma of the cervix should be treated mainly by radium using surgery as an adjunct, in certain cases. These are cancerous conditions in which the two partners in the association are concerned. In frankly inoperable cases, whether from the extent of the disease or its situation, it is agreed that radium often is beneficial. But the view, held twenty years ago, that the knife is the sole agent by means of which cancer can be treated, has passed. And, lastly, it is agreed, that the results hitherto attained by means of radium and X-rays are such that further increase of knowledge and improvement in technique will lead to a further improvement in results almost certainly. An intractable residium of cancer cases will remain, but, in course of time, this will be reduced to a percentage of total cancer cases. How considerable or how small this percentage will be, nobody is in a position to prophesy.

This is a conservative presentation of the situation as regards the treatment of cancer from the radiotherapeutic point of view. The special Cancer number of the *Medical Press and Circular* may be commended to the attention of medical men everywhere.

Presentation, to the University of Toronto, of Portrait of Mr. I. H. Cameron

A very pleasing event in the history of the Medical Faculty took place on June 2nd, when a dinner was given in Hart House, attended by more than a hundred of the subscribers to the portrait of the guest of the evening. The University was represented by the Chancellor, the President, and Sir Joseph Flavelle, of the Board of Governors, who joined in expressing their satisfaction, both official and personal, in accepting for the University so fitting and lasting a memorial of one to whom the University, quite as much as the Medical Faculty, has owed so very much for so many years.

The presentation was made in well-chosen words by Professor C. L. Starr, the Chairman of the Subscribers' Committee. Professor Cameron's reply to the toast in his honor was not long, but in his usual happy vein, touched with reminiscent regret at the severing of his active connection with the Faculty of Medicine.

The best speech of the evening was perhaps that of Principal Hutton, of University College, though Greek indeed met Greek when he and the evening's guest undertook an interchange of compliments. Dr. Thomas McCrae was heard with great satisfaction too, in his skilful well-phrased references to his experiences as undergraduate and house physician in the old days in the Toronto General Hospital, on Gerrard Street, East.

All those present, and a great host of his former students and colleagues, join in wishing Professor Cameron many happy years yet in the intellectual pursuits which he so much enjoys.

News Items

Medical Council of Canada

At the last meeting of the council, held in Ottawa, June 1st, the following officers were elected: President, Dr. L. P. Normand, Three Rivers, Que.; Vice-President, Dr. J. M. MacCallum, Toronto; Registrar, Dr. R. W. Powell, Ottawa; Counsel, F. H. Chrysler, Ottawa, re-elected.

Dr. Brett of Edmonton presided at the sessions of this year.

Much regret was expressed at the enforced absence of Sir Thomas Roddick, of Montreal, the Honorary President.

There are 32 members in the Council, which is an administrative body created under the Canada Medical Act, and which consists of representatives from the provinces and the universities.

Matters of medical education and licensing and the appointment of boards of examiners to conduct examinations in French and English on October 10th at Montreal and Halifax, and also on June 12th, 1923, in Toronto, Winnipeg, and Vancouver. There are now 800 registered in the official Canadian Medical Register, and the Registrar was instructed to impress on those registered the desirability of using their qualification of L.M.C.C. on all documents where their signatures appear.

Licentiate of the Medical Council of Canada is the qualification created by the Canada Medical Act, and is accepted in all the provinces as sufficient for license.

At a Special Convocation of the University of Toronto, June 8th, the following honorary degrees were conferred on medical men: Doctor of Medicine, Dr. Huerner Mullin, Past-President of the Ontario Medical Association; Doctor of Science, Dr. A. B. Macallum; Doctor of Laws, Sir Auckland Geddes, British Ambassador to the United States. Sir Auckland was formerly Professor of Anatomy, McGill University, and was elected President of that institution. His appointment at Washington compelled his resignation from this position.

Professor David James Gibb Wishart

Dr. Wishart has resigned as Professor of Otolaryngology in the University of Toronto. The announcement was received with considerable regret as Dr. Wishart, both mentally and physically, may be considered quite in his prime, his actual age now being sixty-two on his last birthday. He was educated at Brantford Collegiate Institute and the University of Toronto, graduating B.A., in 1882. He took his medical course in Montreal and graduated, M.D., from McGill in 1885. After post-graduate work in the Old Country, he commenced practice in Toronto. He became Demonstrator at Trinity Medical College in 1892, and Professor of Laryngology to the Women's Medical College in 1896. After federation, he became Assistant-Professor of Laryngology and Rhinology, 1903. He became thoroughly well-known to the profession of Ontario while acting as secretary to the Ontario Medical Association for a long period, 1887-1894. His efficient work in that body will be ever remembered by the members who lived in those years. Dr. Wishart was one of the strong men of the University and he was always known, both within and without University circles, as a man, able, and independent.

Professor Perry G. Goldsmith

Dr. Goldsmith has been appointed Professor of Oto-laryngology in Dr. Wishart's place. His father was one of the best-known physicians of Ontario, practising the latter part of his life at Belleville, where he died, 1909. Dr. Perry was educated in Trinity Medical College and graduated, M.D., from Trinity University in 1896. After doing a large amount of post-graduate work in London, Edinburgh, and Vienna, he returned to Canada and commenced practice in Toronto. He knows his subject well and knows how to teach it.

Professor William Belfry Hendry

Dr. William Hendry has been appointed Professor of Obstetrics and Gynæcology, University of Toronto, in the place of Dr. B. P. Watson, resigned. He graduated, B.A., from University of Toronto, in 1889. After teaching for some time, chiefly in Ridley College, he took the medical course

and graduated, M.B., 1904. Upon graduating, he devoted his time largely to Gynæcology and Obstetrics, and, as is well-known, is an expert operator. Most, if not all, of those who think that Obstetrics should not be disassociated from Diseases of Women will approve of the appointment. Looking over his past career, we may say he was a good football player, a good sport generally, a good practitioner, a splendid administrator, and what is frequently called "a born teacher."

Deaths from Cancer in Canada During 1921

During the twelve months of 1921, there were 4,826 deaths from cancer in Canada (exclusive of Quebec), according to figures issued by the Dominion Bureau of Statistics. Deaths from all causes totalled 67,717 during the year which gives cancer a ratio of one death in every 14 from all causes. There were more deaths from cancer than from all forms of tuberculosis, the latter totalling 4,773 for the year.

International Peace Highway

The medical profession is becoming increasedly interested in good roads, especially since the Hon. Mr. Biggs has commenced building his excellent highways through Ontario. We now learn that Canada, United States, and Mexico are being linked together by a huge international trunk-line running from Quebec City to Mexico City, a distance of 2700 miles. The road will run through Three Rivers, Montreal, Ogdensburg, Buffalo, Cleveland, Cincinnati, and Louisville.

The Western University

The citizens of London, Ont., take great pride in their university, and with good reason, as it has become one of the great educational institutions of Canada. The *Free Press,* May 23rd, said the session of 1921-1922 was the most successful in its history, and in making such a statement the writer included the three departments of Arts, Medicine and Public Health.

The late Dr. McCallum, for some years the Dean of the Medical Faculty, was the chief instrument in building up a strong well-balanced teaching department. Dr. Hill, the

worthy head of the Department of Public Health, is doing good work which is highly appreciated both at home and abroad.

Convocation week is a great event in London, and this year a number of functions were included which were successful in a high degree.

May 23rd, Garden Party, Huron College Grounds; meeting of the Western Ontario Academy of Medicine; reunions of the medical classes and the annual University Dinner in the evening.

May 24th, class picnics at Springbank and Port Stanley.

May 25th, University play, "Billetted," afternoon and evening.

May 26th, Convocation and conferring of degrees at Wesley Hall.

A Fundamentally New Technique for Inguinal Herniotomy. *Ann. Surg., 1921*

By M. Pitzman.

The author's operation consists essentially in the suturing of the transversus fascia and aponeurosis (and only these layers) down to the inguinal ligament of Poupart before the peritoneal cavity has been closed. Pitzman believes that this technique is applicable to all inguinal herniæ, small or large, primary or recurrent, and especially to medium and large-necked herniæ. The underlying principle is the reproduction of physiological valve action by: (1) resection of the hernial sac, (2) repair of the enlarged opening in the transversus (transversalis) fascia, and (3) avoidance of injury to the internal oblique and transversus muscles.—*Surgery, Gynæcology and Obstetrics.*

Personals

Dr. G. W. O. Dowsley, for many years a practitioner on Cowan Avenue, Toronto, has removed to Beaverton.

Dr. David A. Beattie is now practising in San José, California.

Dr. J. M. Fowler's correct address now is 203 British Columbia Bldg., Victoria, B.C.

Dr. Gerald Harmer who graduated, 1908, from Toronto is now practising in Paris, France, where he is physician to the British Embassy.

Dr. C. D. McCulloch has been appointed Associate Coroner for Prince Edward County, Ontario.

Dr. Frank Boone, who graduated from Toronto in 1916, is now Assistant in Pædiatrics in Johns Hopkins, Baltimore.

The degree of LL.D. was conferred upon Dr. Clarence Starr by McMaster University, May 16th.

Dr. J. G. Fitzgerald and Dr. John W. S. McCullough, of Toronto, sailed from Montreal for Liverpool on the "Montcalm" Friday, June 2nd, at 11 a.m. On the same evening, the "Montcalm" (16,800 tons) ran aground between Three Rivers and Quebec City at 6 p.m. Two days after the steamer was released by strong tugs and sailed under her own steam to Quebec where the passengers were transferred to other steamers and sailed June 3rd.

Dr. P. E. Doolittle, of Toronto, started for Victoria to attend the meeting of the Canadian Automobile Association, of which he is President, June 12th to 15th.

Society Proceedings

The Ontario Medical Association

The Forty-second Annual Meeting of the Ontario Medical Association was held in the University of Toronto, May 30th-June 2nd. The preparatory arrangements made were about as nearly perfect as possible, and, as a consequence, the proceedings ran about as smoothly as we have ever seen. The section meetings were held in the Main Building (University College), also the opening meetings, with the exception of two or three, which were held in Convocation Hall.

Presidential Address

By Dr. Frank Farley, Trenton, Ontario.

The activities of the Ontario Medical Association have become so enlarged in recent years that we may correctly state it has been virtually reborn. Five new affiliated county societies were organized during the year, bringing the total number up to forty. The work which the Secretary, Dr. Routley, has done in connection with these societies has been very praiseworthy. With the help of the Canadian Red Cross an excellent "Medical Extension Course" has been carried on.

The aims of the Association are to bring together the medical men in the province, to promote just medical laws, to foster efficient medical education, to make the profession more useful to the public, and to make it more honorable within itself.

With reference to the teaching of medicine he had made inquiries from the authorities of the three Ontario Universities, and, from information received, he thought that the medical teaching was entirely satisfactory. "Why condemn the full-time system of medical teaching before it has been fully tried out?" he queried.

He thought that Government laboratories should be established in all county towns with full facilities for the examination of specimens for all the doctors in the separate counties or districts.

He also recommended the appointment of full-time Medical Health Officers and Public Health Nurses, and he thought that in connection therewith the medical inspection of schools

should be taken out of the hands of the Department of Education and placed under the control of the Department of Health.

Tuberculosis

In an address on "Tuberculosis," Dr. Allen Krause, Johns Hopkins University, Baltimore, dwelt especially on what h termed "The Changing Face of Tuberculosis" because of the continual changes that were taking place in the medical views on the subject. He thought physicians should do all in their power to help those recovering from the disease up the *long hill* to health. Care for years was required before health might be attained. The general practitioner should do such work, though the sanitoria hospitals could keep giving the patient what might be called first aid in the direction of cure.

The disease was not peculiar to any one part of the world. the description by Dr. Koch, in 1882, of the bacillus of the disease let in a glimmer of light as to its cause.

It is especially common in children, usually occurring between the ages of three and five.

Tuberculosis followed wealth inversely both as to morbidity and mortality. Poor conditions of living were especially conducive to the spread of the disease.

Sleeping Sickness

Dr. Foster Kennedy, of Bellevue Hospital, New York City, delivered a clinical address on "Epidemic Encephalitis" (Sleeping Sickness). He also spoke at some length on "War Neuroses" which, although varied in character, and very troublesome, were really the simplest form of nervous diseases. He also dwelt at considerable length on certain forms of "Muscular Dystrophy," at the same time stating that the amount of knowledge concerning their causes was very small.

The Study of Symptoms

Two of the best-known and most distinguished ex-students of the medical faculty of the University of Toronto, were the brothers, Tom and Jack McCrae. The name of Colonel John McCrae is known throughout the whole civilized world, largely because of his wonderful poem, "In Flanders Fields." Profesor Thomas McCrae, of Johns Hopkins, Baltimore, who for many years was closely associated in his work with Sir William Osler, has a reputation in both the new and old worlds. Professor McCrae delivered a lecture to a large audience in Convocation Hall. In speaking on "Symptoms and the Study of Them" he urged more care in the diagnosis

of disease. Accurate diagnosis must precede proper treatment in disease. The first great need of the profession of medicine to-day is to get back to fundamentals. A doctor's cross-examination of a patient should be as thorough as that of a lawyer.

Professor McCrae had much to say regarding the general practitioner and his treatment of his patients. "Remove the personal relation between physician and patient and you no longer practise an art but you drive a trade," he said.

Radiumtherapy

On Thursday afternoon, June 1st, Dr. F. C. Harrison read a paper on "Radium in Dermatology," which was supplemented by various lantern slides of cases which had been treated. Dr. W. H. B. Aikins read a paper on "Radium in the Treatment of Diseases of Women." Dr. Aikins dealt with the advances which had recently been made in the treatment of uterine bleeding and cancer of the uterus by radium. The results which have been achieved by the use of this medium have been so encouraging that its value in the treatment of these uterine conditions can no longer be questioned.

On Wednesday afternoon the Medical section held a largely attended clinic in the General Hospital. Dr. A. McPhedran showed 4 cases (1) High Blood Pressure (2) Mitral Stenosis (3) Hyperthyroidism and (4) Abdominal Tumor with Enlarged Glands. He was followed by Dr. Foster Kennedy, of New York, who gave a very interesting hour showing some nervous cases. The clinic was well attended and very much enjoyed.

At 6.30 p.m., May 30, a round table dinner, which was very well attended, was held in the Academy. Afterward there was a discussion of the report of the Committee on Inter-relationships. This gave rise to a large number of three-minute speeches in which the members discussed the relation of the profession to the public. Afterward Dr. V. E. Henderson read the report of the Committee on Pharmacy in which he recorded the fact that the Dominion Government had now undertaken to assay and standardize a number of drugs in common use, e.g., digitalis, pituitrin, ergot, etc. This paper also gave rise to a good deal of discussion, and the matter of the relation between the physician and the pharmacist was turned over to the Committee on Pharmacy.

Ex-House Surgeons, Toronto General Hospital

Those attending the ex-house surgeons' reunion, at the Toronto General Hospital, met at the Academy of Medicine for lunch, 116 being present. Dr. T. Middlebro. Owen Sound, was elected President; Dr. E. A. Gray, Medical Superintendent Toronto General Hospital, Secretary, and Dr. W. S. Fawns, Toronto, Treasurer. The reunions, which were begun 16 years ago, were dropped during the war and revived this year. Next year the reunion will be held at Windsor.

A gold-headed cane, which was presented by the Hon. P. C. Larkin, High Commissioner for Canada, 16 years ago to the ex-house surgeon making the greatest contribution during the year, and which has been held by Dr. T. Cullen, Baltimore, and Dr. A. Caulfield, is now held by Dr. W. E. Galley. The cane is a replica of that carried by the royal surgeon in London, and is worth several hundreds of dollars. The surgeons yesterday presented a cane to the oldest surgeon, Dr. Taylor,. of Goderich. The next oldest is Dr. R. H. Robinson, who had been a house surgeon at the hospital 50 years ago, and who presented to Dr. Gray, for the hospital, an enlarged photograph of the first gathering of ex-house surgeons, held in 1906.

Dr. H. B. Anderson, of Toronto, entertained at his residence, Rosedale, on June 2nd, a number of Ex-house Surgeons of the Toronto General Hospital of 30 years ago. Among those present were Drs. T. Middlebro, H. A. Bruce, H. Way, J. N. E. Brown, and Harold Parsons.

Class Reunions

At the time of the meeting of the Ontario Medical Association there were many class reunions.

Class of 1892.

This class, which meets every five years, held its reunion at the Carls-Rite Hotel, June 1st.

Dr. R. H. Green, Embro, was elected President for the next term ; Dr. Frank Forrest, Port Hope, First Vice-President; Dr. P. McG. Brown, Camalachie, Second Vice-President; Dr. J. Ash, Third Vice-President; Dr. Lewis Campbell, Bradford, Fourth Vice-President; Dr. John N. E. Brown, Toronto, Secretary; Dr. George Bowles, Toronto, Treasurer.

The Executive Committee is composed of Drs. R. Calder, St. Catharines; J. R. Smith, Grimsby, and William Craw-

ford, Hamilton. The Committee on Arrangements includes Drs. H. A. Bruce, B. Kilburn, and J. A. C. Evans, Toronto.

Class of 1902.

This class, which also holds a reunion every five years, met at the King Edward Hotel, June 1st.

Among those present were:—Drs. W. J. Bell, J. E. Davey, A. Fisher, J. J. Fraser, J. A. S. Graham, V. E. Henderson, E. T. Hoidge, J. L. Huffman, J. R. Irwin, W. R. Michell, A. Moir, C. H. Montgomery, N. T. MacLaurin, G. W. Ross, L. L. Stauffer, O. C. I. Withrow and A. B. Wright.

Class of 1917.

One of the most interesting graduating classes from Toronto University is the one technically known as the 1917 class. In order that they might give services overseas this class worked steadily after the session of 1915-1916 through the summer, and won their degree in the autumn of 1916.

The class held a reunion banquet in the King Edward Hotel, Toronto, June 1st, when the following were present: Dr. C. S. MacDougall, Dr. Leslie King, (Milton), Dr. Harry Howell, (Welland), Dr. W. Easson Brown, Dr. Beaumont Cornell (Belleville), Dr. Fred Banting, Dr. Wilmott Sparks, Dr. Joe Reddick, Dr. Douglas Jeff, Dr. Hugh Veitch, Dr. Gordon Cameron, Dr. Joe Gilchrist, Dr. James McClelland, Dr. Fred Parney, Dr. Angus McKay, Dr. William Little (Barrie), Dr. P. McKenzie (Niagara Falls), Dr. Archie Wells, Dr. Isaac Erb, Dr. Roy Glancy, Dr. H. A. Elliott, Dr. Frank Elkerton, Dr. Fred Hipwell. Others of the class who came later in the evening were: Dr. Scott McNair, Dr. Edword Moija, Dr. Roy Simpson, Dr. Stanley Graham and Dr. George Stobie, who, as a raconteur, added a great deal to the evening's enjoyment.

The Garden Party given by Dr. and Mrs. Herbert Bruce at their beautiful home, Bayview Avenue, was a very charming function, and gave much pleasure to the many guests.

The Medical Alumni Association.

A Medical Alumni Association for the University of Toronto was organized June 2nd, when the following officers were elected: Hon. President, Dr. A. Taylor, of Goderich; President, Dr. H. B. Anderson, Toronto; Vice-Presidents, Dr. R. N. Noble, Toronto; Dr. T. H. Middlebro, Owen Sound; Dr. Stewart Cameron, Peterboro'; Dr. F. J. R. Forster, Stratford; Dr. G. W. Badgerow, London, Eng.; Dr. T.

H. Bell, Winnipeg; Dr. H. J. Wayne, Chicago, Ill.; Dr. Thomas McCrae, Philadelphia, Pa.; Dr. H. B. Moffat, Ottawa; Secretary-Treasurer, Dr. Harley Smith; Executive Committee, Dr. Beaumont S. Cornell, Brockville; Dr. A. S. Tilley, Bowmanville; Dr. J. Sheahan, St. Catharines; Dr. J. H. Duncan, Sault Ste. Marie; Dr. C. E. Spence, Fort William; Dr. Herbert Bruce, Toronto; Dr. Stanley Ryerson, Toronto; Dr. F. W. Marlow, Toronto; Dr. F. C. Harrison, Toronto; Dr. W. H. Harris, Toronto; Dr. O. Sisley, Toronto.

The place of meeting of the Ontario Association for the next year will be Windsor with the following officers: President, Dr. E. R. Secord, of Brantford, (by a singularly unanimous voice); First Vice-President, Dr. Fenton Argue, Ottawa; Second Vice-President, Dr. G. S. Young, Toronto; Secretary, Dr. T. C. Routley; Treasurer, Dr. G. Stewart Cameron; Councillors: Drs. T. H. Middlebro, R. T. Noble, G. S. Young, J. F. Sparks, Hugh Laidlaw, John Pratt, R. G. McDonald, W. Krupp, F. W. E. Wilson, E. McQuade, E. Brandon.

The Canadian Public Health Association

The annual meeting was held at St. John, N.B., June 6th and 7th, under the presidency of the Hon. W. R. Roberts, Minister of Health for New Brunswick.

A new avenue of endeavor, to be known as an industrial section, was decided upon. The matter was initiated by Mrs. A. M. Huestis, of Toronto. A committee was appointed to deal with the question of the future policy of the organization and will report at an adjourned session. This committee will also appear at a round table conference during the congress, at which it is intended to deal with the question of an amalgamation of all voluntary public health bodies, under the direction of the Canadian Public Health Association.

The future policy of the organization was one of the principal features of discussion, and a committee, consisting of the chairman, Dr. W. H. Hattie, Halifax, Dr. B. L. Wyatt, of Grandmere, Que., Mrs. Huestis, Dr. C. J. Hastings, Toronto, Dr. W. J. Bell, Toronto, and Dr. G. Melvin, was appointed to consider the matter and report back.

Officers were elected by the C. P. H. A., as follows: Patron, Lord Byng of Vimy, Governor-General of Canada; Vice-Patron, Hon. W. L. Mackenzie King, Premier; Honorary

President, Hon. Dr. Brett, Lieutenant-Governor of Alberta. President, Dr. W. C. Laidlaw, Edmonton, Alberta; Vice-Presidents, Dr. J. A. Baudouin, Montreal; Mrs. R. J. Hooper, St. John; Secretary, Dr. J. T. Phair, Toronto; Treasurer, Dr. A. G. Fleming, Toronto; Section Chairman Child Hygiene, W. J. Bell, Toronto; Mental Hygiene, Dr. C. K. Russell, Toronto; Social Hygiene, Dr. J. J. Hagerty, Ottawa; Laboratory Workers, Prof. A. Rankin, M.D., Edmonton.

The resolution committee recommended that the next meeting be held in either Edmonton or Banff.

Health Officers' Association

The 8th annual meeting of the Health Officers' Association of Ontario was held in Toronto, May 29th and 30th, under the presidency of Dr. J. W. Shaw, of Clinton.

Dr. Shaw in his address referred to the relations existing between the medical profession and the public, especially in regard to the prevention of disease. He said the people were interested in our work, and wanted to know a good deal about it, and while he did not wish to destroy the traditions of our profession he thought the doctors should be the teachers and the trusted leaders of the people in things medical.

Dr. James Roberts, M.O.H., Hamilton, expressed the opinion that in every community of 25,000 to 50,000 population, there should be appointed a full-time health-officer to take care of medical needs. He also thought that the prevention of disease should occupy a far more prominent position in the medical profession.

Dr. H. W. Hill, of London, Ont., stated positively that physical fitness was not an absolute safe-guard against disease, and that infectious diseases could not be fought simply by keeping the body in what is called "perfect health." He pointed out that those acquiring such diseases were often in perfect condition. Children suffering from malnutrition were no more susceptible to infectious diseases than perfectly normal children. Nor does fatigue precipitate infection; as an example he referred to the epidemic of influenza which had affected Europe during the war years very lightly as compared with England and America. Yet, it was the inhabitants of Europe who were really poorly clad, ill-fed, and in a general run-down condition. Furthermore, the people who were most seriously affected by the influenza were between the robust years of 20 and 40. The war of the M.O.H.'s must be waged

against the infinitesimal forms of life. The prevention of infection can only be accomplished by destroying the biological sources of disease.

Dr. M. J. Rossenau, Professor of Medicine and Hygiene, Harvard University, read a paper on "Food Poisoning." He referred especially to two forms,—Food Intoxication and Food Infection. The term, Ptomaine Poisoning, was rapidly going out of use as it was clearly incorrect. In the past it was supposed to be decomposition of a protein food, but food poisoning was not thus caused. In dealing with the prevention of the two forms of poisoning, he stated that the cooking of food played the most important part. The cooking should be thorough and recent. Preserved food should not be eaten if there is evidence of spoilage or decomposition.

Dr. W. W. Lailey, of Toronto, read a paper on "Pre-Natal Care." He said there was a preventable loss of a large number of infants in Toronto. He mentioned the names of Dr. Hastings and Dr. Grant Fleming, who deserved great credit because through their work Toronto was the first city in Canada to open pre-natal clinics.

Dr. C. J. Hastings, M.O.H., Toronto, delivered an interesting address on "More Efficient Care of Mothers," and gave a résumé of the history of the work done by the profession regarding such care.

Mr. F. A. Dallyn, Sanitary Engineer of the Provincial Board of Health, delivered an address on soil pollution. He stated that the use of wells for the disposal of waste caused pollution over a large area, and the pollution could not subside until the cause had been discovered and the practice discontinued. Typhoid infection did not come alone from the water supply, but might arise from unsanitary conditions in dairying.

Dr. P. O. Coulombe, M.O.H., Sturgeon Falls, described the recent advances made in public health measures in that town, and he stated, among other things, that the municipality had received very valuable assistance from the district medical officer.

Dr. Roberts pointed out that 25 per cent. of all cases of surgical tuberculosis arose from the bovine tubercle originally consumed by the human being in milk. He advised against allowing milk to stand in the sun since it rapidly became depasteurized. Milk should, when at all possible, be kept on ice.

Mr. Alex White, Chief Sanitary Inspector for the Province, advocated the appointment by the government of three

trained milk specialists, who could approach the question from the dairyman's standpoint.

Several members from various parts of the province including Galt, Brantford and Ottawa, maintained that the most important question of all was the condition of the herds. One suggestion offered was that each municipality should have complete control of the milk supply.

Dr. Grant Fleming, Deputy M.O.H., Toronto, delivered an address on the municipal control of the milk supply. The inspection of farms and the education of farmers, having as inspectors veterinary graduates, and the inspection of all equipment used in producing and delivering the milk, and in the process of pasteurization, were absolutely necessary.

Dr. Colin Campbell, of Toronto, gave some alarming statistics in regard to the frequency of squint among children. If taken in time, before the age of 5 or 6 years, there should be no difficulty in effecting a total cure. The trouble arose when a cure was attempted by a person not possessing proper medical knowledge. In many cases of ineffective treatment children were apparently freed from the defect and the eye seemed perfectly normal, when, as a matter of fact, the child would be almost entirely blind in one eye, and yet all of it is preventable. No time should be lost in stopping the practice of having children under five years of age examined for glasses by one who is not a skilled medical practitioner.

The following officers were elected for 1922-23: President, Dr. D. V. Currey, St. Catharines; First Vice-President, Dr. T. A. Lomer, Ottawa; Second Vice-President, Dr. T. J. Park, Amherstburg; Secretary, Dr. J. J. Middleton.

Canadian and Ontario Dental Associations

Dr. W. A. Evans, medical editor of the *Chicago Tribune* and late Commissioner of Public Health, Chicago, delivered an address before the Canadian and Ontario Dental Associations, May 18th, in Convocation Hall, University of Toronto.

Probably there is no authority on Preventive Medicine in the United States better known to Canadians than Dr. W. A. E. Evans, of Chicago. He is as greatly beloved as he is highly respected by us all. It happens, fortunately, that his social qualities are quite up to the standard of his intellectual attainments.

Joseph G. Adams, M.D.

Dr. J. G. Adams, of Toronto, died at the residence of G. S. Martin, Burlington, May 21st, aged 83. He was a member of the Ontario Medical Council representing the homeopaths, 1869-1875, and was a member of the Board of Examiners of the Council in 1880.

Chas. Wm. Buchanan, M.D.

Dr. C. W. Buchanan, of Toronto, died at his home, May 20th, aged 84. He graduated, M.D., from the University of Toronto, in 1865, and practised medicine for a long term of years in Cookstown.

Wm. Telfer Robson, M.B.

Dr. W. T. Robson died at his home, Vanneck, County Middlesex, May 26th, aged 71. While motoring, May 6th, his car was overturned and caught fire. The doctor received severe burns from which he died. He graduated, M.B., from the University of Toronto, in 1878.

Thomas F. Flaherty, M.D.

Dr. T. F. Flaherty died at his home, Massey Station, May 7th, aged 53. He graduated, M.D., from the Western University, in 1895.

Recent Graduates

Graduates in Medicine, Queen's University, Kingston

Degrees of M.D., C.M.—Charles W. Aitcheson, Lougheed, Alta.; A. Irvine Armstrong, Brockville; A. Clifford Baiden, Kingston; Frederick H. C. Baugh, B.A., Kingston; Gordon Bicum, Sombra; Leonard C. Blakey, Kingston; James Harold Blair, M.B., Aneroid, Sask.; William J. Brough, Hamilton; Frederick W. Bush, Cardinal; William Campbell, Cumberland; Albion S. Chance, Port of Spain, Trinidad, B. W. I.; R. Lorne Carefoot, M.B., Naicam, Sask.; Amos B. Clayton, Port Hope; Wilfred R. Crowe, Orangeville; C. Merlin Eynon, Ottawa; Gerald F. Fairbairn, Brockville; Harry R. Fleming, B.A., Kingston; Howard H. Folger, B.A., Kingston; Norman V. Freeman, B.A., Inverary; Amos E. Friend, Wolfe Island; Bertram H. Harper, Whitby; Gordon S. Harris, Niagara Falls; N. Roy Houston, Carleton Place; Kenneth Keill, B.A., Kingston; Thomas R. Kerr, B.A., Portsmouth; Bruce E. Knapp, B.A., Brockville; D. O'Gorman Lynch, Kingston; John Peat Mackie, Kingston; Roderick Mackinnon, Strathlorne, N.S.; N. J. Linnington Margetson, Basseterre, St. Kitt's, B.W.I.; S. E. Earl McDowell, Shawville, Que.; William M. McNeely, Carleton Place; William J. Nicholson, Trenton; John H. Pilkey, Wexford; James K. Pomeroy, Fusilier, Sask.; Augustus D. Roberts, Toronto; Keith B. Suddaby, Kingston; N. Cameron Sully, Wakefield, Que.; W. Arthur M. Trusdell, Vancouver, B.C.; Stuart A. Wallace, Ottawa; C. Wilson White, Parkside, Sask.; Thomas N. Wills, Lyndhurst; Reuben C. Wilson, Bolton; Clifford L. Wingham, Hawarden; Percy Winston, Kingston; Russell L. G. Poerger, Humboldt, Sask.; Claude R. Young, Bath.

Diploma of Public Health, University of Toronto

Wilmot Alvin Graham, M.B.; James Frederick Hazlewood, M.B.; Archibald Gladstone Naismith, M.B.; Robert Elmer Wodehouse, M.D., C.M.; Catherine Frances Woodhouse, B.A., M.B.

Bachelor of Medicine, University of Toronto

Frank Nathaniel Allan, James Orton Anderson, Simon Appel, George Walter Armstrong, Joseph Edgar Bates, Edmund Charles Bell, James William Bell, Edgar Arnold Bicknell, Edword Shearman Bird, Harold Godfrey Bird, Mary Elizabeth Bowyer, Turman Leo Boyes, Clayton George Bryan, Robert Clifford Bull, Dorothy Jean Burrows, Glennford Weir Carrow, Walter Little Carruthers, Rollett Andrew Carson, George Edward Case, Lillian Alice Chase, John Francis Vickers Chester, Victoria Chung, Irving Murray Cleghorn, Kingsley White Cosgrove, Lawrence Joseph Crowley, Frederick Cruickshank, John Frederick Cumming, Beverly Pearce Danard, James Alan Dickson, David Eisen, Ray Fletcher Farquharson, Chester William Gladstone Ferrier, Hyman Peter Fine, Eric Gordon Fleming, James Alexander Forrest, Arnold Francis, Daniel Gordon Gill, Aaron Glassberg-Volpe, Harold Gordon, Arthur Henry Graham, Max Grainer, Norman Hamilton Green, Victor Samuel Grigg, Arthur Stanley Hale, Frank Cyril Hamill, Lloyd Edmund Hamlin, John Adam Alexander Harcourt, Robert Bloomer Hare, George Warren Harris, Harry Hart, Miln Cobbe Harvey, William Henry Harvey, Fred Harold Haskett, Kenneth McKellar Heard, Gordon Edward Helston, John Robert Hendry, Colonel Richards Henry, Hubert Willows Hetherington, John Cyril Hewgill, John Philip Hubbard, James Harold Hutchison, Frederick Theodore Hutton, Franklin Arnold Ireland, Joseph Leonard Jackson, Joseph Harvey Johnson, Frederick Launcelot Junkin, Archibald Joseph Kilgour, Pennington Kiteley, William Cunningham Laing, William Ewart Gladstone Lancaster, Ross Stanley Lang, Walter Wilfred Lee, Ernest Weir Linklater, Hugh David Logan, John Clarence McClelland, Robert Baird McClure, Wallace Burnett McClure, Robert Hugh McDonald, William Grant MacDonald, Joseph Arthur MacFarlane, Alexander McNeil McFaul, James Richard McGarry, Arthur William McGarvah, William George Mackersie, Lola Dell McLatchie, Charles McLellan, Harold Orville Macnamara, Charles Albert Markowitz, Charles Ansley Martin, George Graydon Martin, Roy Church Merifield, Earl Gilbert Merritt, John Edward Minns, Aubrey Redvers Earle Mounce, Frederic Cleophas Myers, Elizabeth Nesbitt, James Murray Ogilvie, Francis Joseph O'Leary, Walter Melville Pamphilon, Walter Stanley Palmer, Francis Richard Charles Patterson, Frederick Rolston Perfect, Harry Shaw Phillips, Jacob Pollack,

Robert S. Pratt, D'Arcy Jerome Prendergast, Mabel Pearl Russell, Ewart Sproat Sarvis, Nathan Shaul, Violet Amelia Shaw, Leonard Vernon Shier, Stanley H. Sievenpiper, Kenneth Younie Sinclair, Henry Alan Lawson Skinner, Charles Gordon Smith, Alfred Morell Stanley, Russell Whicher Stephens, Warren Ormsby Stoddart, Orland Patrick Sullivan, Roland Earl Taylor, Maurice Ernest Thomas, Maru Isabel Tom, Dorothy Moody Trapp, Fred William Underhill, Melville Clarence Watson, Douglas St. John Wigle, Claude Vivian Williams, William Wilson, Minnie Wladowsky, Harry Arkell Wrong.

Bachelor of Science (Medicine), University of Toronto

Donald James Bowie.

The Country Doctor

The country doctor, as we have known him in his pristine glory, is rapidly disappearing from the ken of mankind. Perhaps he gets the smallest reward society offers any men of the learned professions, and certainly his remuneration, unless it be in the consciousness of duty well done, is not in proportion to the time and money he puts into preparation and the hardships he is called upon to endure.

If he gets pay he regards himself as fortunate; if not, he seldom complains. Of course, most of his neighbors are not objects of charity, but they are such close friends that he hesitates to ask for their money for his services for fear he should be regarded as mercenary. Usually, he wears himself out serving others, long before he has lived the time allotted to men. There are a few of his kind still left here and there thruout the country, but they are rapidly passing to a reward that should surpass that received by most of them while here. —*Amer. Medicine.*

Correspondence

Our London Letter

(*From our own Correspondent.*)

May 15th, 1922.

The Future of British Hospitals. For some time past the future of British hospitals has looked gloomy and while, at the present time, matters in this respect do not appear greatly encouraging, yet perhaps, there is a rift in the clouds. At any rate, opinions with regard to reforms in the conduct of hospitals seem to be hardly so hide-bound as formerly. When the suggestion was first made that the American system of paying for maintenance and treatment in hospital according to means be adopted, the response to this suggestion was languid and, in fact, the proposal was deprecated by the majority of the medical profession. Sir John MacAlister, Secretary of the Royal Society of Medicine, was one of the first to advocate the adoption of the pay or partial pay system, but his voice was almost like that of one crying in the wilderness. However, there are now distinct signs of a change of attitude and the other day, the question was made the text of the annual oration of the Medical Society of London by Mr. H. J. Waring, surgeon and joint lecturer in surgery at St. Bartholomew's Hospital. Mr. Waring, after pointing out that in Great Britain only the poor, for whom the hospitals were founded, and the rich received really skilful medical or surgical treatment under the most favorable conditions when their cases were of an urgent nature, as our nursing homes for the most part were but of a makeshift character, went on to summarize the advantages which would be gained by the provision of a department for paying patients in a general charitable hospital. To patients: members of the upper and middle classes would obtain institutional investigations and treatment of the same high standard as they provided, or assisted in providing, for the necessitous poor. To hospitals: the special departments, both for investigation and treatment, could be more fully and continuously utilized than was done at present, especially in those hospitals where such departments are only open on two or three days or half-days per week. The overhead charges for

general administration would not of necessity be increased, or, in any case, not proportionately increased. Therefore, a portion of such charges could be legitimately transferred to the paying department, and consequently each paying department could be made a source of profit to the hospital. To staffs: members of the staffs of the hospitals would be able to have some of their patients in the private or paying department, and thus save themselves considerable time in going from one private hospital or nursing home to another. Resident medical officers could be appointed to a paying department of that kind, whose services would be valuable in the absence of the medical man under whose care and treatment they were. The advantages provided by a paying department of that description would, he thought, be most appreciated in connection with maternity and surgery. At the present time the mortality in connection with maternity was little different to that which obtained in pre-aseptic days. That was a serious reflection on their methods. Government and departmental measures appeared to be much to blame for the very limited and inferior accommodation in that respect. The Government seemed to be much more interested in the survival and preservation of the unfit than in the promotion of measures for the preservation and survival of the fit.

Mr. Waring's proposal, which a year or two ago would have been criticized adversely, has met with approval from all sides. It is allowed that while the suggestion that the general charitable hospitals should establish departments for paying patients requires careful consideration in many of its aspects, it is both workable and, if properly carried out, should be beneficial to the community at large, and to the medical profession in particular. It is stated that the governing bodies of the London hospitals approve of the suggestion in principle. Of course, it is assumed that the carrying out of such a scheme is not intended to involve the withdrawal of any of the accommodation now maintained in the interests of the poorer classes of the community and its utilization for the benefit of another class. Consequently, separate establishments would be necessary for paying patients, but their provision must not impose any burden on hospitals whose funds are even now inadequate to the fulfilment of their existing obligations. The hospitals were founded for the relief and benefit of the indigent, and although conditions have changed so completely, that the objects of the founders hardly apply to the present time, yet the hospitals are bound to maintain a certain number of beds

consecrated to the necessitous poor, and they are striving to raise funds for this purpose. If, therefore, departments for paying patients are to be provided, the hospitals must be financed in order to bring this about. It is pointed out that in the United States, and it may be added, to a large extent, in Canada, everyone, rich and poor, goes to the hospitals and gets the advantages of organization and the highest medical skill. As a rule, in the United States, at any rate, beds are provided according to the capacity of the patient to pay, and the more wealthy are able to maintain luxurious accommodation. It is believed that it is some such system that Mr. Waring has in view and that sooner or later it will be adopted in Great Britain. The old hospitals in London, and in many other parts of the country, were founded by religious bodies when the lower classes existed mainly for the benefit of and by grace of their so-called superiors. The religious bodies at that time cared for the bodies as well as for the souls of the serfs and founded institutions in which when sick or hurt they might be spiritually nourished and, if possible, physically revived and invigorated. The voluntary system from these beginnings took root and flourished and up to a few years ago answered the purpose, that is, of treating and caring for the necessitous poor satisfactorily. But the middle classes have never been afforded the opportunity of receiving the most efficient medical and surgical treatment under good conditions and this has always been the blot on the British hospital system. However, it seems likely that if the war had not placed such a strain on the hospitals financial and otherwise, the voluntary system would have continued in the same old way. The crisis has come and the hospitals are at the parting of the ways. Drastic reforms must be introduced, tinkering is no longer of any avail, and it is now recognized that tradition and conservation must, at least, be abolished partially. It behooves the hospitals to move with the times, retaining the best features of the voluntary system and yet falling into line with modern ideas. The hospitals should not be for one class only but for all classes. The pay system engenders self-respect and independence and should be encouraged for this reason alone.

A Great Surgeon Honored. At a Congregation of the University of Leeds, held on May 4th, the degree of D. Sc. *honoris causa* was conferred upon Sir Harold Stiles. Dr. Jamieson, the Dean of the Faculty of Medicine, in presenting Sir Harold Stiles for his degree, referred to an ancient Greek epitaph on a foreigner written by Simonides: "I, Brotachos

of Gortyna, lie here, not having come for this but on business." Sir Harold Stiles had come to Leeds for the business of the meeting of the Association of Surgeons of Great Britain, of which he was the retiring president. Sir Harold Stiles had, perhaps, the most distinguished medical career of any student of Edinburgh University. His career indeed as a student has seldom been equalled, the late Dr. Murray Leslie being one of the few who swept the board of scholarships and prizes in the same wholesale manner as Sir Harold Stiles. A very considerable number of brilliant students do not fulfil the promise of their youth. Sir Harold Stiles is one of the exceptions as he has more than fulfilled this promise. He is an original thinker and research-worker, an excellent writer and is, moreover, a surgeon of the first rank. Sir Harold Stiles is well-known and has many friends in Canada who will welcome as well deserved any honor that may come to him.

Congress of Radiology and Physio-Therapy in London. This congress is to be held in London from June 7th to 10th under the auspices of the Section of Electrotherapeutics of the Royal Society of Medicine and of the British Association for the Advancement of Radiology and Physiotherapy. The president of the Congress is Sir Humphry Rolleston; Chairman of the Executive Committee, Sir Archibald Reid; Secretary General, Dr. Stanley Melville; Assistant Secretary, Dr. Justina Wilson. The programme is long and there will be an interesting exhibition of X-ray and other apparatus.

Treatment of Disease and Particularly Malignant Disease by means of Radium and Other Radiations. The Radium Corporation of Czecho-Slavia some time ago desired the services of a British expert to go to the United States to inquire into the recent work of the various institutions in that country for the treatment of disease, particularly malignant disease by radium and other radiations. Dr. W. S. Lazarus Barlow, Professor of Experimental Pathology at the Middlesex Hospital in the University of London, obtained the consent of the Board of Governors to the acceptance of an invitation to undertake this investigation. Professor Barlow has been in the States for longer than six weeks and gave the other day to a representative of the *Morning Post* a summary of his general impressions. Professor Barlow visited New York, Philadelphia, Baltimore, Washington, Pittsburg, Chicago, Buffalo and Boston. In Washington, he lectured on the report of himself and others to the Medical Research Council with re-

gard to the results of the investigation at the Middlesex Hospital of the effect of the employment of the large quantity of radium lent by the Council. The following may be taken as an authoritative statement of the Professor's opinions as to medical research in the United States, and cancer research in particular. He says that the United States and Great Britain are at the parting of the ways. The States have a considerable amount of wealth and extraordinary facilities, and they are now looking out for the men to utilize these. In England they have the men but not the facilities, and this is where the parting of the ways comes. if the Americans can develop the men of the type possessed in the older country, there is no limit to the distance they can go in medical research. On the other hand, if England can provide the facilities, the quality of the men there at the present time is such that they can hold their own. The English investigators cannot compete with them in respect of facilities, but can in respect of brains. But if the Englishmen are not supplied with the facilities necessary for the rapidly extending medical research of the present day, it appears almost certain that they will fall behind in the race. As regards the quantity of radium element being employed in the treatment of malignant disease in America and in Great Britain, the United States have the advantage of about ten to one. So far as the most eminent exponents of any particular branch of research are concerned, there is no substantial difference in attainments and qualifications between the several nations interested, and America certainly does not fall behind, with regard to general ability. Where her strength lies is in the numerous foundations for medical research, and in the numbers of young men who are devoting themselves to it. Her danger is suggested in the possibility that she may be overwhelmed by attention to meticulous detail. Given avoidance of that there is no predicating the position she will have attained in medical science in the next twenty-five to fifty years. The danger to British investigators lies not in the direction but in the inadequate provision of facilities for the young men to be trained properly. At the same time, it is desirable that the English lack of attention to details should be corrected somewhat, and that in this direction they should take a leaf out of the book of their American cousins. The Professor would not desire to see institutions here as large as they are in the United States, because of the amount of administrative detail that they impose on the director, taking

him away from his more proper duties of research work, and also because of the large administrative staffs required. Larger centres of research in Great Britain would be useful, but they should not be so large as to entail the disadvantages that have been mentioned. In addition to these reasons, there is the consideration that British individualism shows itself best in establishments of moderate size.

Thyroid Extract in the Vomiting of Pregnancy

Albeck (*Hospitalstidende*) has found a definite relation between the size of the thyroid and the severity of the vomiting in pregnancy, patients with small, barely palpable thyroids suffering much, and patients with large thyroids suffering little or not at all from this condition. Accordingly, he has given thyreoidin (10 to 15 cg.) in several cases, and he has found that, as a rule, the vomiting ceases in a couple of days. He does not attach much importance to the many successes achieved by this treatment in slight cases, as the results may have been coincidences; but he was greatly impressed by the improvement effected in 25 severe cases treated in hospital. After eliminating 5 cases in which pregnancy had to be interrupted on account of polyneuritis gravidarum, he discusses the remaining 20 cases. All the patients were admitted in a much debilitated and emaciated condition. They were kept in bed on a milk diet, given a saline infusion of 1,000 c.cm. daily, *plus* thyreoidin. All were remarkably improved, and 17 went to term, giving birth to living infants. But only in a couple of cases was the vomiting completely appeased, and the ptyalism from which several of them suffered did not wholly disappear. —*British Medical Journal.*

Doctor:

Do your patients ever think of this:

It's not what they *eat* but what they *assimilate* that counts

As every physician knows, digestion of food is essential in order to benefit by its nutritive qualities. Moreover, if in digestion food ferments or undergoes putrid decomposition it may be an actual menace to health.

This is one reason why it is of advantage to have all cereal foods thoroughly baked. Baking not only partially digests cereal foods, thereby developing the particular flavor, but it establishes the physical condition that avoids fermentation and promotes digestion, so that the food is properly assimilated by the system to yield strength and energy.

Grape-Nuts, the delicious cereal food made from whole wheat flour and malted barley, is probably the longest baked of cereal foods. It is kept for twenty hours in ovens heated to just the proper temperature to develop the best condition of the cereal for digestion.

Grape-Nuts contains valuable mineral salts required for nerve, tooth and bone structure. It is a good all-round food that helps children to grow sturdy and healthy, and there is nothing better for adults.

For breakfast or lunch the delight and appetite-satisfaction in a dish of Grape-Nuts with milk or cream is known practically throughout the civilized world.

You and your patients, can get Grape-Nuts anywhere and everywhere; in the most exclusive hotels and clubs; on dining cars; in modest lunch rooms; and at the largest and the smallest grocery stores.

Samples of Grape-Nuts, with full information, for personal or clinical trial will be sent upon request to any physician who has not received them.

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Abstracts

Parkinson's Disease and the War

(Bernard Legrand, Paris Thesis, 1921).

All the classical authors, from Charcot, have been in accord in making sudden, strong emotions, or repeated and prolonged emotions, play an important, sometimes even the principal, role, in the genesis of Parkinson's Disease. Vulpian, Grasset, Brissaud, and more recently Van Gehuchten, confirm this opinion.

From observations made in 25 cases by MM. Roussy and Cornil, it appears that, on the one hand, during the war, one did not find typical Parkinson's Disease in the soldiers, as a result of violent emotions. In two cases reported, the trembling and the rigidity existed before the emotion shock occurred. On the other hand, the examination of 20 patients (suffering from this disease) in the Homes for the Aged in the Paris district, consequently exposed to the Gotha bombardments, shows that the disease began without emotional cause. The emotional thesis, rejected also by Souques, Guillain and Chrissiansen, cannot be supported, indubitably, by the ancient and retrospective observations of the classics. The tendency to refer all trembling to emotion and the frequency of psycho-neuropathic trembling explain in part the long triumph of emotional theory. If one admits, with Souques and Netter, the identity of Parkinson's Disease and Parkinsonian post-infection syndromes (specially in epidemic encephalitis), one finds an additional argument against the role of the emotions. The latter may, however, act in making more evident a case of the disease, that had hitherto been undetected.—Translated by Harley Smith, from *Le Progès Medical.*

Treatment of Articular Rheumatism

Lutembacher uses intravenous injections, twice daily, of 3 gr. of pure salicylate, in solution 1/30th.. After the injection, one puts into the vein a few cubic centimetres of physiological serum, to avoid the hardening of the venous walls.

DR. SENIOR: "At this time of the year, when athletic sports are prevalent—you will find Antiphlogistine a sheet anchor in traumatic synovitis—bruises—simple and infected wounds—contusions et id genus omne——"

DR. JUNIOR: "The mention of wounds reminds me that we had Antiphlogistine in the hospitals during the war——"

DR. SENIOR: "I recall an article by E. P. Hoyle, the first American physician in Flanders, in which he mentioned, in no uncertain terms, the value of Antiphlogistine in treating wounds in French War Hospitals."

DR. JUNIOR: "I have been told that Antiphlogistine is now available in all parts of the world, that it is being manufactured in many of the important cities, such as Paris, London, Montreal, Barcelona, Berlin, Sydney, Buenos Aires and New York, with branches in India, China, Japan, South Africa, in fact in every civilized country. How do you account for this world-wide support of the medical profession?"

DR. SENIOR: "Because Antiphlogistine stands alone as a non-toxic, non-irritant abstracter of fluid exudates in superficial inflammations. It is the only preparation that will relieve deep-seated congestion by inducing superficial hyperemia—through its inherent hygroscopic property, and that without irritation."

These injections keep the organism under the constant influence of the drug, as the elimination is not completed within 12 or 13 hours. Two of the patients thus treated presented a gastric intolerance to the ingestion of salicylate. Lutembacher combines the injections and the ingestion using the latter in the night. He continues the treatment for 15 or 20 days, even when the temperature has fallen. For ten days of each month, up to 12 or 18 months, after the attack, he gives 2 or 3 gr. of the salicylate. He claims that the relapses (in which the tenacity of the infection increases) can thus be avoided.—Translated by Harley Smith, from *Le Progrès Medical.*

Fatalities from Calomel Injections

Backer (*Hospitalstidende*) has observed two fatal cases of mercurial poisoning following intramuscular injections of calomel. He finds that 16 such cases have hitherto been recorded, and he notes that the dosage in many cases was heroic. But in his two cases this was not so. In the first case three intramuscular injections of 10 cg. of calomel were given at intervals of eleven to twelve days. In the second case three intramuscular injections of 5 cg. of calomel were given at intervals of a week. On the day of the third injection neither of these patients showed signs of impending mercurial poisoning; there had been a little transient gingivitis and tenderness about the teeth after the second injection, but no alarming symptom of poisoning. In both cases the third injection was rapidly followed by fever, diarrhoea, and other signs of severe mercurial poisoning. This ended fatally twenty days after the third injection in the first case, and six days after the third injection in the second case. In consequence of these two cases, which occurred at the author's hospital in 1915 and 1921, he has abandoned intramuscular injections of calomel, finding the oral administration of mercury perchloride much safer.—*British Medical Journal.*

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Selections

The Treatment of Puerperal Sepsis

(Zur Behandlung der puerperalen septischen Erkrankungen). *Fortschr. d. Med.,* 1921.

By T. Roos.

The author discusses the best methods of treating puerperal sepsis with special reference to those used during the last few years at the Hess Midwife Institute in Mainz. In view of the severity of the infection, no remedy should be left untried which offers any promise of success whatever. The local treatment of puerperal ulcers and septic endometritis has been entirely abandoned as it is absolutely impossible to sterilize an infected wound mechanically or chemically. Moreover, local treatment of the internal genital organs may be injurious. The same is true of vaginal and uterine douches which may force septic material into the tubes and even into the peritoneum. Douching is frequently followed by a chill and, as the result of the breaking through of the wall of granulation formed by the body, peritonitis, thrombophlebitis, septic thrombosis, or general sepsis may develop.

Instrumental cleansing of the septic endometrium and atmocausis, which apparently provide a favorable culture medium for the bacteria in the uterus, have also been abandoned. Uterine douches are employed today only when there is pronounced stasis of the lochial secretion with absorption and high fever. Removal of ichorous fœtal or placental remains with the fingers is followed by a douche forty-eight hours after the disappearance of fever. It is best to leave small placental remains untouched during fever as digital or instrumental removal is more dangerous even after a period of weeks.

Attempts to improve the condition by operative removal of the infected organ usually fail. Frequently peritonitis or septicopyæmia results and these as a rule are soon fatal. Whether an abdominal or a vaginal hysterectomy is done, the entrance of virulent bacteria into the operative wounds, the connective tissue, the peritoneum, and the opened blood vessels can rarely be prevented. Surgical treatment is usually re-

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stricted to: (1) the opening of abscesses of the pelvic connective tissue, (2) incision, irrigation, and drainage in diffuse purulent peritonitis, and (3) ligation of the veins in thrombophlebitis. The author advises allowing the abscesses to point. They can then be reached much more easily and with less danger either through the vagina or by abdominal incision, and heal rapidly without complications. Encapsulation is obtained best by rest and the administration of opiates. The application of heat is recommended to aid the decrease and absorption of encapsulated abscesses.

In the presence of a puerperal peritonitis having its origin in a pelvic peritonitis, which as a rule cannot be expected to become cured spontaneously, immediate operation is indicated. In the beginning of this condition muscular tension is frequently absent, but more rapid and superficial breathing, nausea or vomiting, and a more rapid and increasingly smaller pulse are characteristic. The opening is best made in the midline under local anæsthesia. The incision should be only a few centimeters long. Secretions should be drained with rubber drains and, if necessary, several counter-openings should be made. Irrigation with saline solution is contraindicated as it might spread the process further. Ether may be poured into the abdominal cavity. In especially severe cases only adrenalin-saline solution should be given intravenously. Electric light treatment, diathermy of the pelvis, etc. find a wide application.

An experience of many years in the treatment of puerperal sepsis has demonstrated that intravenous injections of the silver colloids and the acridin salts (acriflavine) deserve special consideration. The prophylactic administration of these preparations to enable the body to overcome a spreading infection is also recommended. In addition, analeptics, cardiac stimulants, alcohol baths, and a nourishing fluid diet are indicated. —*Surgery, Gynæcology and Obstetrics.*

Ischiorectal Abscess: Its Etiology, and a Method of Treatment to Avoid Fistula and Recurrence.—*American Journal Surgery, 1921.*

By G. S. Dudley.

On the second surgical division at Bellevue Hospital during the past three years, 25 per cent. of ninety cases of ischiorectal abscess resulted in complete cures, i.e., normal bowel control and no sinus. Of the remaining cases, one was a case of epithelioma, one was fatal because of gas bacillus infection,

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two were cases of tuberculosis, two were complicated by diabetes mellitus, and in others there was a history of repeated operations in the treatment of the abscess. The usual sequence of events was: (1) operative incision of an ischiorectal abscess, (2) the formation of a persistent sinus, and (3) recurrence of the abscess.

With regard to the relationship of ischiorectal abscess to pulmonary tuberculosis Walsham cites 891 cases under treatment for three years in which there were only five cases of anal fistula and two cases of ischiorectal abscess. In 133 autopsies only one anal fistula was found. Gant states that tuberculosis is present in from 4 to 6 per cent. of cases of anal fistula. Dudley has noted that only a few abscesses and fistulæ are proved tuberculous by histologic examination—not more than 2 per cent.

Except in cases of hæmatogenous origin, true ischiorectal abscess is practically always secondary to a break in continuity of the anal mucosa. In the beginning the process may be considered as a blind internal anal fistula with abscess formation. Hard fæces or a sharp foreign body may lacerate the mucosa and open a path for infection of the poorly resisting fatty tissue. Other less common causes are inflamed and thrombosed hæmorrhoids, rectal ulceration, polypi, and neoplasms. Debilitating illness, such as influenza and pneumonia are not uncommonly complicated by ischiorectal abscess.

The weakest point in the bowel wall is the small anal canal between the two sphincter muscles which is separated from the fatty tissue of the ischiorectal fossa only by tendinous insertions of longitudinal muscle fibers. This becomes more pronounced with age and prolonged straining during defæcation.

During the last three or four days before the patient seeks medical advice the ischiorectal abscess compresses the fat of the fossa, thus permitting union of the original injury to the mucosa. Consequently at operation the point of infection may be difficult to find.

The surgical treatment has two main objectives: first, to evacuate the pus and provide drainage; second, to determine the point of entrance of the infection. The author recommends: pre-operative castor oil catharsis, two soap-suds enemata in the evening of the day before operation, general anæsthesia with the patient in the lithotomy position, and thorough manual dilatation of the sphincter muscles by gradual stretching for five to ten minutes to permit inspection of the anal mucosa. A definite defect or locally inflamed indurated area

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on the muscosa is then seen. The abscess is incised by an ample radial incision. After retraction of the wound edges, a second search for the tract is made with the probe externally and a finger in the rectum. As frequently the probe will pass into the gut lumen, care must be taken not to make an artificial hole. The entire tract should be laid open by incision and division of the external sphincter to place the tissues at rest. Pus is taken for bacteriological study and a section of the abscess wall for histological examination. The wound is packed with petrolatum gauze.

Postoperatively the gauze is changed and the wound irrigated following the first bowel movement (usually the third day) and subsequently each day. The wound heals by granulation from the depths. Daily hot sitz baths are beneficial, hastening convalescence. If an internal opening was not found at operation, a search is made for it at the dressings with the probe externally and the finger in the gut lumen. If it is located, the patient is again anæsthetized, the tract is laid open, and the external sphincter is divided.

If the abscess were opened and drained simply by a skin incision, the cavity would contract to a small persistent sinus and recurring abscesses might form as the result of renewed infection from the rectum. An unusually large abscess or an abscess involving both ischiorectal fossæ may require a second operation for complete cure.

In Dudley's opinion Elting's method of dissecting back and resecting the diseased mucosa and suturing healthy mucosa to the anal mucocutaneous margin is as dangerous as the Whitehead method.—*Surgery, Gynæcology and Obstetrics.*

Miscellaneous

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The Divorce—Marian Drewitt.
The Cookhouse Door—Lydia Mestyn.
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Original Communications

Presidential Address of the Canadian Society of Anæsthetists*

By Col. William Webster, D.S.O., M.D.

On this, the occasion of the second annual meeting of the Canadian Society of Anæsthetists, I have the inestimable pleasure of addressing you, in this, our city of Winnipeg. I trust, although the natural beauty of situation cannot compare with some of the cities of the East and extreme West, that you will find something of attraction and—to some of you at least—the level country, with its long vistas extending to the distant horizon may not be found wholly without that charm and appeal which it undoubtedly presents for many who enjoy the far-flung open spaces.

Here, at the junction of the Red and Assiniboine rivers, the former with its slow, winding stream meandering between green, well-timbered banks, with the old Hudson Bay fort and trading-post as a nucleus, our city has gradually come into being and stands as the gateway to the Western prairies.

I trust your stay here, both from the point of view of profit derived from the papers presented, and from the perhaps equally pleasurable entertainment provided, will cause a kindly remembrance to remain of your, only too short, visit.

When the matter of accepting the nomination for the Presidency of the Canadian Society of Anæsthetists was first broached to me, I accepted with considerable trepidation as, although we have here a good-sized hospital and medical school of which we are proud, still we are isolated from the large medical centres to the east and south by many hundreds of miles, and, therefore, do not come in close contact with

* Delivered at the Second Annual Meeting at Winnipeg, June 20th, 1922.

those working at the same speciality as frequently as we would desire. We must of necessity be satisfied with an occasional visit to other centres and with what may be gleaned from the current literature; and here I would like to ask the question, whether the time has not arrived when, instead of the anæsthetists of this continent being represented by publications contained in a portion of a journal, issued every three months, a monthly, or possibly at first a less frequently issued journal of our own should not represent us, and provide space for the papers it is found desirable to publish.

At present, you are all aware, certain space is provided for us in the *American Journal of Surgery*, which portion is ably edited by our friend and colleague, Dr. McMechan. He it is, who, of our fraternity, best knows the difficulties and cost entailed in the publication of a magazine. We also have the N.A.R.S. Bulletin, published by the Society of that name, which is doing a most useful work. Before the sessions of this meeting are completed I should like, however, to see a committee formed, with Dr. McMechan as Chairman, who would go thoroughly into the question of the ability of the anæsthetists of this continent to support a journal of our own and the feasibility of starting the same at an early date.

There are several forms the journal might take—publication at stated intervals, or at irregular intervals, as material came to hand; though I am of opinion that a plentiful supply of material would soon be furnished. A high-class journal would to a certainty be offered papers which are now often published elsewhere, in addition to receiving those published in the present journal. I use the words "high-class journal" advisedly, as I think it should be such, not only in quality of material but also in appearance, type, illustrations, etc. Such a journal would attract much good material from European centres as well as those of the United States, Canada and other English-speaking colonies.

At our last meeting, held in Niagara, Dr. Boyle, of St. Bartholomew's Hospital, brought us the news of a new ether perfected by Wallis and Hewer of that hospital. After laboratory tests on animals proved its efficiency it was used on the human subject, and later put on the market under the name of "Ethanesal." Its composition, as you are no doubt all aware, consists of an absolutely pure ether, with an admixture of two per cent. of the middle ketones and a little carbon dioxide.

In its use, extending over some seven hundred cases, in which the age of the patient has varied from three weeks to

eighty-one years, and the duration of the anæsthesia from fifteen minutes to two hours, I have found it far more satisfactory than any other ether. The vinous odor is rather pleasant, appears to be much more agreeable to the patient, and is more readily taken; the induction period is shortened, the quantity used is about two-thirds that of the best standard ethers; the after taste is less disagreeable and post-operative nausea and vomiting are lessened. The breathing is much quieter than that of ether, often approximating that of chloroform or the C.E. mixture. There is consequently less abdominal movement, a desideratum in all abdominal operations. In extra-abdominal operations, after the patient has been under some time, the anæsthesia may often be permitted to be so light that the patient will blink his eyelids, but remains motionless and apparently without pain. Frequently one may permit the lid and corneal reflexes to be quite active when the operation is commenced, even in laparotomies, provided a deeper stage is reached by the time the peritoneum is incised. The muscular relaxation is much greater than with other ethers, approximating more to that of chloroform.

A little practice is required to obtain familiarity with this anæsthetic, the tendency at first being to keep the patient more deeply anæsthetized than is necessary. If not too deeply anæsthetized, patients usually wake more promptly than after other ethers.

Wallis and Hewer, by their work, have given us more than just a better ether for anæsthesia. For the first time we possess an ether of which we know the exact constituents, and their proportion. Manufacturers of established reputation have provided us with specimens of ether and have vouched for their purity from all harmful products in the past. Those in common use have no doubt been purified to a considerable degree but some specimens, as shown by experimental chemists, have contained harmful constituents, thio-ethers, mercaptans, etc. No manufacturer (until recently when the Dupont Powder Company, with Cotton Process Ether, and Savory and Moore with the Ethanesal of Wallis and Hewer, put their products on the market) has had the enterprise to put on the market an ether of which the exact constituents and their percentage was stated on an accompanying leaflet. To use an ether of which we know the exact composition is a great advance on the old method of using an indefinite solution, which the label only stated was pure and fulfilled the requirements of the British or United States pharmacopœia, but which never even

pretended to state the exact quantity of each chemical constituent present. We owe a debt of gratitude to those whose research has provided another step in advance in the scientific aspect of anæsthesia. In addition it has attracted the attention of chemists to the subject and we may, I think, confidently expect it to stimulate some of their number to direct their energies towards an attempt at the further improvement and purification of all those anæsthetic drugs commonly in use.

And so we find no finality in our work. From prehistoric times use has been made of narcotic substances for the relief of pain, though the practice of true anæsthesia belongs to comparatively recent times. When we look back on the improvement that has been accomplished in the last seven decades, the thought that possibly the advance of the next seven may be as great—for the constant discovery of new facts which, linked up with those already known continuously adds to our knowledge—provides our speciality with an inexpressible attraction. Wherever we look, or whatever we achieve, we are always confronted with new problems and new advances. There seems to be no finality; nor is that to be desired, for if we ceased to advance it is probable retrogression would occur. Standstill in this, as in most things, is impossible.

The principal improvement in apparatus of late seems to be more in the direction of perfecting the machine for the administration of N_2O-O alone or with ether, and this has now reached a stage much in advance of the apparatus of even ten years ago. There are still minor details capable, or at least desirable, of improvement. The apparatus is cumbersome at the best. Is it possible that in time a method of further compressing gasses may be discovered, thus lessening the size of tanks required, and that the other parts of the apparatus may be reduced in size and weight while retaining all their present efficiency? Possibly in a few more decades we, or those who follow us, will look back in wonder at the cumbersome machines now in use. New inhalers for the administration of ether are also not infrequently put forth as great improvements on the old. Some of these, particularly those in which a definite quantity or percentage of vapor can be delivered, are of undoubted utility, especially in the hands of skilled anæsthetists. For the tyro the simpler methods are best, as a complicated apparatus takes too much of his attention and interferes with that close supervision so necessary to the patient's welfare and safety.

In fact the speciality of anæsthesia is at present in no danger of becoming crystallized. The danger rather lies in the opposite direction. New methods are too apt to be hastily declared improvements on the old, and while no one will decry any attempt at improvement and advancement, and the science is continually improving, still new methods and apparatus should be well tried out before their enthusiastic advocates claim too much for them. Frequently one sees much lauded apparatus put on the market which is no better, sometimes not so good, as that already in use.

During the past few years considerable controversy has arisen regarding the use of nurses, or others with no medical qualification, for the administration of anæsthetics. During the war the dearth of medical men was so great in England and Canada that nurses were perforce, of necessity, employed in this work. In most cases this was looked upon as a temporary expedient, necessitated by circumstances which we hope will never occur again. With the disbanding of armies, the medical man was again enabled to take up his work and there is now no scarcity of qualified men to fill the positions.

Nurses undoubtedly should have instruction in the nursing aspect of anæsthesia; the pre-operative and post-operative care of the patient, etc., and it is perhaps advisable that in the unorganized portions of this Western country, where a medical man visits seldom and where, in the event of a difficult obstetrical case, or injury, or an emergency operation, he has no assistance but that of the "District" or "Victorian Order Nurse," she should have some instruction in the administration of anæsthetics, as she will be the only available person to whom the medical man can turn at this juncture for assistance. This, however, only where a qualified medical man or woman cannot be obtained.

It has lately been suggested in some places that legislation be obtained giving nurses the right to administer anæsthetics, so far, fortunately, without results. However, the legal aspect of the matter is by no means clearly defined, for—

"Apart from any criminal intent, a bonesetter or a beauty doctor, or a quack of any kind is as much at liberty to administer an anæsthetic to his patient for the purpose of an operation as a qualified medical anæsthetist."

This striking passage occurs in a Parliamentary paper issued early in 1910. It is contained in the report of a Departmental Committee of which Sir McKenzie Dalzell Chalmers was chairman. The committee advised that it should

be made a criminal offence for any person to administer an anæsthetic, who had not professional qualifications, or was not acting under the supervision of one so qualified. A resolution to this effect was formulated by the Medico-Legal Society of London, in 1908,[1] so far without result.

However, certain decisions bearing on this matter have been handed down of late by the Courts, and are of interest as showing the trend of thought on the subject by the judges who gave these decisions.

In the case of employment of a non-medical anæsthetist, however experienced, where no emergency for such existed, and a qualified man could have been obtained, the Supreme Court of Louisiana awarded the plaintiff $10,000 damages[2] against the company by whom he was employed.

In a suit brought against a surgeon, for employment in an hospital of a medical student with little experience in anæsthesia, and when death resulted to the patient, it was decided that the administration had been conducted properly and under supervision, as two qualified physicians were present most of the time and had a general supervision of the case.[3]

It would appear, therefore, that a surgeon employing an unqualified person to administer an anæsthetic, when one qualified was obtainable, lays himself open to an action for damages in the event of some untoward occurrence.

Legislation is also being sought at present, particularly in the United States, to define clearly the relative responsibility of the physician and surgeon in the event of any accident happening from the anæsthetic during a surgical operation. It would appear reasonable that as the law now stands a qualified anæsthetist would be held solely responsible in such instance, provided he selected and administered the anæthetic according to his own judgment. Should the surgeon, however, insist on a certain anæsthetic or method contrary to the expressed opinion of the anæsthetist, he would shoulder the responsibility, provided the anæsthetist brought a due amount of skill and knowledge to bear during the administration.

Again, when a patient desires a certain anæsthetic which in the anæsthetist's opinion is not the most suitable and, being used, a fatality should occur, it would not absolve the anæsthetist from full responsibility in that he deferred to the patient's wishes, the anæsthetist being the one who possesses

[1] Trans. Med-Legal Soc., Lond. Vol. 5, 1908; also B.M.J., 1908, Vol. 1, p. 747.

[2] Medical Record, Feb. 28th, 1914.

[3] Am. Jour. Surg., Anaes. Supp., Jan. 1918, p. 59.

the requisite knowledge to determine the most suitable anæsthetic and method of administration.

It is to be regretted, that at present the responsibility for the results of administration of an anæsthetic is not clearly laid down, and legislation to that effect, it is to be hoped, will not long be delayed. The anæsthetist should hold a medical degree, be required to have the requisite knowledge of his art, and be held solely responsible for any fatality that may arise in its exercise.

At present each case is left to the interpretation of a judge and jury, whose findings, one sees by looking over a number of cases which have come into court, though often just, sometimes err through lack of accurate knowledge of a science with which they are unfamiliar. All this might be avoided if our legislators as previously mentioned, would take the matter in hand and lay down a definite ruling as to the minimum training required of those to whom the public entrust their well-being and lives, when they are required, for any purpose, to take an anæsthetic.

The Welfare of the Surgical Patient*

By Dr. A. J. Slater, Winnipeg.

From the moment the patient who is about to undergo anæsthesia is admitted to hospital he should be surrounded by an atmosphere of cheerfulness and kindness. This will do more to dispel his fears than all else. To this end, the entire hospital organization, including surgeons, nurses and attendants, in fact, all who come in contact with the patient, must be made to realize the importance of carrying out this detail of warding off all depressive, and consequently exhausting, stimuli.

The body should be kept full of fluids, usually alkaline. Complete rest during the night preceding the operation should be secured by whatever sedative is considered best for the individual case. To prevent the symptoms of acidosis, patients should be well fed until the morning of operation. If the operation is to take place later in the morning, a light breakfast should be given and the patient allowed to have water until within two hours of operation. A hypodermic of morphine, gr. 1/6, and atropine, gr. 1/150, can be given the adult patient an hour before operation.

* Read at the Second Annual Meeting of the Canadian Society of Anæsthetists, Winnipeg, June 20-21, 1922.

One of the most common results of the use of the open method is acapnia. If this becomes marked, as is sometimes the case during an induction where there is much excitement, the patient shouting, crying out or breathing rapidly, a definite period of apnœa may develop. Under these circumstances, a dose of whiskey, sufficiently large to quiet the patient, will place him in a hypercapnia stage and be of decided advantage, as Dr. Kahn, New York City, states that sometimes doses of whiskey and water increase the body oxidative processes and exert an anti-ketogenic influence.

Shock. The activation of the kinetic system to the point of exhaustion, whether due to sudden or prolonged injury, is represented by the term "surgical or traumatic shock." The changes leading up to this condition may be started by emotion, carried a step farther by muscular exertion, another step by physical injury, another by hæmorrhage, and so on, until destroyed; or all the factors acting simultaneously may produce the same disastrous result, from which general anæsthesia protects a patient to a very limited extent only. These degrees of circulatory depression are:

(1) Safe: ten to fifteen per cent. increase in pulse rate without change in pressure; ten to fifteen per cent. decrease in blood pressure without change in pulse rate.

(2) Dangerous: fifteen to twenty-five per cent. increase in pulse rate with fifteen to twenty-five per cent. decrease in blood pressure.

(3) Fatal: progressively increasing pulse rate above 120, with progressively falling blood pressure of eighty mm. or less, systolic, and twenty mm. or less pulse pressure, for more than twenty minutes.

Post-operative Emesis. In a limited number of cases post-operative emesis assumes a grave type and definitely threatens life. Clinically, the earliest symptom to raise suspicion is the reappearance of vomiting at a time when one would expect such trouble to have abated, usually twenty-four or thirty-six hours after operation. Within a few hours the nature of the vomit changes from the usual bilious stomach contents and shows obvious evidence of the presence of altered blood. The pulse and temperature begin to rise, the countenance assumes an anxious look. A trace of jaundice is usually present. The nervous system becomes affected, as shown first, in restlessness, and later, delirium. Every degree of this condition is possible, but a very large proportion of recognizable cases pass into coma, and death supervenes within a few days,

sometimes less. Investigation into such cases has shown that the essential, underlying condition is an acidosis closely allied to that seen in diabetic coma. The breath has the peculiar sweetish aroma of acetone, and acetone, diacetic acid, and betaoxybutyric acid successively appear in the urine. Post-mortem examinations show the most striking change to be a profound fatty degeneraion of the liver, the cells of which are disintegrated as in acute yellow atrophy. When the tissues are unable to obtain sugar from the blood, fat is broken down via these dangerous acids to acetone, instead of to carbon dioxide and water, as in starvation where the supply of sugar from the liver has been used up and the patient, living on his own fats, breaks them up abnormally.

Post-anæsthetic Poisoning. Acidosis follows the use of ether very rarely indeed. After nitrous oxide, it is unknown. Chloroform has been the drug used in almost every recorded case, while ethyl chloride has been responsible in a few isolated instances. Anæsthesia, repeated in the same subject after a short interval, is more prone to start the process than a first inhalation. Also, acute sepsis, particularly in the young, is notorious for its liability to be followed by acidosis. The obvious moral of the foregoing is that chloroform should not be administered to patients suffering from acute sepsis, particularly if they be very young.

With reference to curative treatment, much can be done if the gravity of the condition is recognized early. The stomach is first washed out with alkalis, and a substantial dose, one dram, of bicarbonate of soda left in it. The same dose is repeated hourly by the mouth, if retained, or per rectum. A useful addition to the alkaline treatment is glucose, likewise in teaspoonful doses. In grave cases these drugs should be given intravenously in saline solution. These measures, combined with warmth and ample fluids by mouth or rectum, will often save life; but to be of any value they must be begun early. Fulminating cases occur which succumb rapidly in spite of treatment.

The pathologist should be called upon to standardize those patients who come to the hospital for operation. Special care, however, should be given those who present themselves for severe infections, hæmorrhages, exhaustion from cancer or ulcer of the stomach, exophthalmic goitre, surgical shock and cholæmia, as these are the common predisposing causes of surgical deaths.

Cholaemia with Obstruction of the Common Duct. In the patient with deep jaundice, who has suffered a period of

nausea with consequent loss of nutrition and of water equilibrium, the internal respiration of the cells, particularly of the liver, has become impaired, while the function of the liver is quite certainly interfered with by the back pressure of the bile. If, owing to infection, to diminished nutrition, to want of water, to lowered blood pressure, to the back pressure of the bile, the internal respiration of the liver has been reduced ten, twenty, forty, sixty or eighty per cent. at the time of operation, to that extent will the brain have been compromised and by so much will the power of the liver to function in the presence of the deleterious factors of the operation have been reduced. If the internal respiration of the liver cells has been reduced by forty per cent. and the patient is placed under full ether anæsthesia, which of itself alone will reduce the internal respiration in a like degree, then the remaining twenty per cent. of functioning power can hardly suffice to carry the patient through. Moreover, in addition to the anæsthetic, the trauma of the operation, the coolness of the viscera, and, perhaps, hæmorrhage, will add their quota so that a one hundred per cent. loss of liver function is all too readily reached.

The patient goes through the operation satisfactorily and recovers from the anæsthesia. Blood pressure and general physical examinations give no adverse indication. At the end of the first day, apparently, all is well. The night, however, is not so satisfactory. On the following day the patient is restless, perhaps has nausea; he loses interest in his surroundings, refuses food, the tongue is dry and coated, and a period of steadily increasing depression develops. In three, four or five days the patient is dead. Autopsy does not reveal the cause of death.

Since the margin of safety in the individual patient depends directly upon his nutritional reserves, it follows that, if these reserves are greatly reduced, any operative procedure, even if technically perfect and performed with minimum trauma, may drain the depleted stores beyond the possibility of restoration. The course of treatment, therefore, and the choice of operative procedure must be governed by the state of the reserves of the individual patient.

The management and treatment of these cases are based on probability and not on the state of the patient at the moment. In preventive surgery, as in preventive medicine, it is never known whether or not the preventive measures were required in the individual case; it is only known that the emergency did not occur. Anociation, like asepsis, is an example of preventive medicine.

Pre-operative Treatment for Bad Risk Cases of Cholaemia. Three intravenous injections, on successive days, of a ten per cent. solution of calcium choride, from five to ten cubic centimeters, in redistilled water, have lowered the coagulation time to normal. In the cholæmic state, however, calcium may not be the only factor in the tendency to bleed, so that when the calcium exhaustion has been remedied, if the coagulation time is still high, transfusion of blood is indicated. Two other factors of importance must be considered in counteracting the evil effect of the cholæmic state: first, to restore the normal amount of blood sugar and liver glycogen reserve; and second, to overcome the dehydration, thus aiding the kidneys in the elimination of bile pigments, one of the chief causes of the general exhaustion of the cholæmic patient. Fortunately, this can be accomplished by increasing the quantity of ingested carbohydrate and fluid intake, by mouth, by the Murphy drip, or, if necessary, by subcutaneous infusions of from three to five per cent. solution of glucose, which can be introduced subcutaneously up to 2,000 or 3,000 cubic centimeters in twenty-four hours.

Factors of Surgical Operation that Further Impair the Vitality. These leading factors may be grouped under two headings:

1. The surgical trauma set up in the course of the operation.

2. The impairment of the immunity of the patient by ether anæsthesia.

Ether anæsthesia, in a close risk of acute infection, even without operative procedure, might easily dispatch the patient. Is there an innocuous substitute for ether anæthesia which can prevent the nerve impulses set up by the cutting and handling of tissues from reaching the brain, and finally, when the nerve impulses cannot be blocked, can the stimulated nerve cells be prevented from using up their dischargeable substance?

In grave cases, the first stage should include only such measures as are required for the relief of the biliary obstruction. Any manœuvre for the removal of the stones should be disregarded, unless they are in the way. Drainage—rubber tube drainage—sewn in to make a fluid-tight connection with the common duct, completes the technique.

At the conclusion of an operation, in which the entire biliary tract is not clearly defined and explored by the usual common and hepatic duct instrumentation, associated with the usual manipulation and palpation, that is, an operation completed without definite knowledge as to the number and loca-

tion of stones, the surgeon has an uncomfortable feeling of suspended judgment, but he has his patient, who may be cured on another and more auspicious day. The ultimate operation can well be delayed until the danger point is passed, and the stability of the liver cells and of the brain cells has become established.

The strain of ether nausea and vomiting is especially dangerous in these critical cases which we are now considering. The dose of ether required to dissolve the lipoid in the brain sufficiently to cause anæsthesia, dissolves, also, the lipoids in the liver, the kidneys, the red blood corpuscles, and other important structures. The mere fact that the patient comes out from under the influence of the ether does not eradicate the handicap produced by the anæsthetic. The inhalation anæsthetic, deprives the patient of from ten, twenty, thirty, fifty to one hundred per cent. of his chance of ultimate recovery. It is certainly a very interesting fact that the length of life after excision of the liver is almost identical with the length of time that an animal can live under ether anæsthesia.

Nitrous oxide anæsthesia, as compared with ether anæsthesia, confers a high degree of immunity to shock. Under nitrous oxide, a patient will endure approximately three times the amount of operative trauma as under ether, while, in addition, the patient will go to sleep pleasantly, instead of under stress, there will be little or no post-operative nausea, as with ether, and there will be an immediate, complete awakening from anæsthesia, instead of ether intoxication. In what manner does nitrous oxide protect the brain cells more than ether? It must be remembered that nitrous oxide produces anæsthesia by the prevention of the use of oxygen by the brain—an anoxemia of the brain cells. The chemical response of the brain cells is, of course, only possible in the presence of oxygen. Therefore, as there is a large reduction in the amount of oxygen available in nitrous oxide, the highly dischargeable substance of the brain cells is prevented from being so rapidly used up for want of oxygen. It is like turning on the fire extinguisher before the torch is applied.

A skilful and complete local anæsthesia, upon which is superimposed gas oxygen anæsthesia, aims to destroy consciousness. Failure to completely block the field of operation shows itself in changes in the patient's respiration, in moaning, or slight movements, followed by rigidity. Retractors are seldom employed, and the utmost gentleness is exercised in handling the tissues. The surgeon, appreciating the fact that the anæsthesia is primarily a local and secondarily a general anæs-

thesia, interprets undesirable rigidity as due to incomplete nerve block, rather than to the faulty administration of the gas and oxygen.

Post-operative Treatment. During the patient's post-operative stay in the hospital, the prime effort should be the restoration of the patient's reserves. To this end, as in the pre-operative period, water and nutrition are forced; acid-producing factors are eliminated from the patient's environment as far as possible; and, above all else in importance, sleep is induced by every possible means. While rest in ideal conditions may prevent further drain upon the patient's reserves, the restoration of the energy-storing and energy-transforming organs is accomplished only during sleep. There is one fact that stands out prominently, and should be heeded by all surgeons, and that is, that no patient is well until he thinks he is well. When one catches this viewpoint, he will be a factor in preventing a large number of chronic incompetents.

Public Health Organization.*

By James Roberts, M.D., M.O.H., Hamilton.

The last ten or fifteen years have witnessed a radical transformation in the minds of those entrusted with official health administration, with respect to two important phases of the Public Health Problem at least. In the first place, the old obsession, not at once dissipated by laboratory investigation, that the source of man's infections was traceable to his environment, has rather suddenly been displaced by present-day beliefs resulting from fuller and more accurate knowledge gained by a combination of laboratory and epidemiological studies. The modern theory of infection finds the source of disease in the individual himself—the excretions and emanations of his body, and the transmission of the virus to his fellow beings by contact, direct or indirect, the well nigh universal route. Secondly, the perspective of the sanitarium has undergone a remarkable change and his horizon has tremendously widened.

In addition to the control of communicable diseases, supervision of water supplies, sewage, housing, and elimination of nuisances, we do not hesitate to include in the category of Public Health Activities, such subjects as Infant Welfare, School Hygiene, Public Health Education, Industrial Hygiene, Dental Hygiene and Personal Hygiene. These and other matters of

* Read at the meeting of the Ontario Health Officers' Association, Toronto, May 29th, 1922.

perhaps lesser, but vital, importance are to-day regarded without suspicion of protest as coming legitimately within the purview of the regularly constituted health authorities.

The place of mental hygiene in the future programme of public health I might allude to separately because of its importance. "Doubtless," says Stewart Paton, "we shall soon visualize the present opportunity, see the problems in their right perspective and make provision for teaching mental hygiene in connection with departments of hygiene. As a matter of fact, many physicians do not yet recognize the importance of considering these two departments, physical and mental hygiene, as inseparable and representing two phases of one great problem."

In the April issue of *Mental Hygiene,* Haven Emmerson says, "We can't go forward on any public health campaign without:

Public understanding.
Medical education and leadership.
Facilities for diagnosis and care.
Study, research, and information.

All health campaigns have gone through these phases. The principles are similar in all; the results in mental hygiene promise more than others because of the quality of them. The essential spirit of health and happiness is mental, and has a future as far beyond that of physical-disease control as the mind of man is the greater objective for which we build the healthy body."

Such of the more intelligent and altruistic sections of the laity as take an interest, active or otherwise, in the welfare of the community have grasped the fundamental conceptions of the New Public Health. Will it be necessary for this educated lay public to point out to the medical profession and the existing health administrators, their present opportunity and responsibility, and to apprise them of the fact, that, in so far as the future of their work and their influence is concerned, it may well be that the present is the accepted time and to-day the day of salvation?

My object in this paper is merely to suggest in what directions future efforts of our Health Departments might be profitably exerted, while attempting also to outline very briefly, changes in machinery and construction necessary to maintain our position as leaders and directors in the new era, and calculated at the same time to secure best and more permanent results.

The present system of administration reflects quite characteristically the rapidity of the evolutionary changes in our ideas with respect to the causation of disease, and the method of prevention and, in my opinion, leaves much to be desired.

If a uniform method of procedure, a standard unit of organization, constituting a system by which, for instance, facilities for good work, and scope of activities could be estimated, and results compared, while at the same time our service to the public could be simplified and rendered of the highest efficiency, we, as executive health officers, ought to be prepared and willing to sacrifice our individual ideas and predilections to the dictates of a higher and better service. How best can this be achieved?

I believe by an extension and elaboration of our present system of Health Districts. No one in close touch with matters pertaining to the Public Health in the Province of Ontario during recent years will question for a moment that the revision of the Public Health Act of 1912, the amendments thereto, and particularly the division of the Province into approximately equivalent units of population for purposes of greater efficiency of administration have been productive of encouraging results. Among the changes for the better, it is safe to say that the more direct interest of the District Health Officer in the work of the Local Boards has had a stimulating influence on the work of the Local Officers, and has led to the awakening of a keener interest in health matters in very many communities throughout the Province.

It is true that in our larger centres of population there has been remarkable progress during recent years in the adoption of scientific methods, particularly in the practical application of laboratory findings to the routine departmental work. In many of these centres we have full-time health officers, full-time bacteriologists, qualified food inspectors, and a corps of public health nurses: each division working in harmony with the others toward the prevention of preventable disease. Even with such impressive equipment and elaborate machinery supported by annual appropriations, by no means of trifling or insignificant proportions, can it be truthfully asserted that we are accomplishing more than lopping off the branches, rather than striking at the root of the giant ygdrasil under the protecting shade of which the forces of disease and death threaten continually the welfare and happiness of our people? The exanthematous diseases still kill their thousands; the great white plague its tens of thousands annually. Lest we forget, let us call to mind that within a period of less than four years, a devastating epidemic swept over this continent, leaving in its wake a death

toll of more than half a million souls, and yet up to the present time there has been no drastic demand for such a reorganization of our health forces as shall prepare us to cope with a similar emergency or minimize the handicaps and unpreparedness of that trying period. The epidemic of infantile paralysis in 1910 lingers like a grim spectre in the public memory, haunting the minds of anxious mothers with the return of summer days, while the pathetic victims of its malevolence are daily to be seen on the streets and public places of every town and city.

With respect to diphtheria, an analysis of diphtheria death registrations in Ontario between the years 1880 and 1918, by Professor Fitzgerald, has shown that there has been a steady decline in death rate from this disease during these years. Although the population increased from 1,884,000 in 1880 to 2,800,000 in 1918, the deaths from diphtheria fell from 1,251 in 1880 to 335 in 1918. Notwithstanding this remarkable achievement, it is astonishing to note in the self-same pamphlet, that "there is a steadily increasing case incidence, even though the case fatality rate has been diminishing and that this is in harmony with the facts observed in many other parts of the world."

Time will not permit even a feeble attempt at enumeration of the fields of Public Health Endeavor in which, by reason of insufficient funds and imperfect organization, the urban M. O. H. is not permitted to engage except after a desultory fashion. The adequate housing of our artisan population is in its infancy. Our child welfare work is spasmodic and fragmentary; our school inspection imperfect; industrial hygiene, as yet not much beyond the stage of experimental research. We have scarcely done more than touch the fringe of the venereal disease dilemma. In the domain of mental hygiene, while the problems of delinquency, incorrigibility and criminality are receiving some attention, the question of how to increase the stock of the thrifty and capable and shift from their shoulders the burden of the unenterprising rich and unenterprising poor, is still in the novitiate stage.

If this is the state of affairs in our large cities, what shall be said of hygienic advancement in our smaller cities, towns and rural districts? In some of these, particularly in the rural districts, the last decade has witnessed a marked improvement in the sanitation of rural homes with regard to essential features, but, in many sections, the ear-marks of progress are still sadly lacking. Respiratory infections from neglect of personal hygiene and circulatory disturbances from exposure and over-

work are very prevalent. Small outbreaks of typhoid fever are still a frequent occurrence among our suburban populations, while towns and smaller cities in many instances require the constant supervision of the central authorities to ensure the purity of their water supply. It is stated by those in close touch with the tuberculosis problem that this disease is surprisingly prevalent in our farming communities. It is only in the last two or three years, through the Bureau of Child Hygiene of the Provincial Board of Health, that active interest in the care of babies and the promotion of child welfare has been introduced in our towns and smaller cities. No cities of under 20,000 people employ a full-time health officer. They can not afford to do so, primarily, from lack of funds. In populations of less than 15,000 persons, not to speak of towns, villages and rural municipalities, full-time health officers, bacteriologists, milk and dairy inspectors are out of the question, because the expense of maintaining such a staff is prohibitive, and, moreover, if finances were forthcoming for their employment, the work would be insufficient to occupy their undivided attention, with consequent waste of funds, dissatisfaction, criticism and disparagement of public health work.

My contention is that most of our difficulties in providing an adequate service, and one that would command more universal respect, is due to the fact that our unit of administration is too small. Given a population of from 25,000 to 50,000 persons—I leave aside the method of apportioning revenue to be raised as purely a matter of detail—we have, first and most important, to provide a full-time health officer. This official, to be successful, must, as with any other vocation in life, be first intelligent and capable of doing this particular kind of work, and he must also be specially educated and trained for his work. The popular misconception that any graduate from a medical school is competent to assume the duties of health office, is responsible for many of our short-comings in the practice of preventive medicine and is an obstacle to progress. Our universities are doing much to gradually eradicate this heresy. The scriptural implication that no man can serve two masters is fully exemplified in the attempt of the physician, dependent on practice for a living, to discharge satisfactorily the duties of M. O. H. If he carries out the duties as a side issue to his daily routine, the importance of the work is discounted or degraded in the eyes of the public; if he is faithful and conscientious, he makes enemies and injures his reputation. The full-time health officer should, above all things, be imbued with the idea that his work is a public necessity and a solemn trust.

Talent, superabundant energy and diplomacy will not suffice if there is absence of this conviction. He ought to be held responsible for the public health of the community, using the term in its broadest sense. I think the words "public health" convey a rather hazy and indefinite meaning to the man on the street, and if it were possible to rechristen our Health Departments into Departments of Preventive Medicine, our prestige would be wonderfully enhanced.

Given a population such as I have mentioned, merely by way of suggestion, for which a competent health officer has been provided and his tenure of office sufficiently secured, there should be an adequate revenue for the support of a health department, organized to meet the special needs of the area it is intended to serve. There should be a well-equipped central building or office from which the direction of all personnel should proceed. Call it a Health Department, Health Centre, Community Centre, Department of Preventive Medicine, as you please—names are immaterial, function of chief importance, and this should be the prevention of disease. A small but efficient laboratory is essential and cannot be dispensed with.

In sparsely-settled districts, where hospital facilities are not easily procurable, the equipment of temporary hospitals might be undertaken under conditions of special stringency. Physical examination might be provided for those not well, but who do not consider themselves sick enough to go to bed or to a hospital. Think of the inestimable advantage to the community from a financial viewpoint of enabling those in the ambulatory stages of disease to continue their accustomed calling, and to provide for themselves and their families, instead of breaking down prematurely, becoming objects for provision of hospital outlay, and frequently a burden to their friends. If treatment of disease is not attempted by the Health Department, except in cities where the control of municipal hospitals is placed within its jurisdiction, the sympathies of the medical profession will not be alienated. At the same time the private physician will do well to fall in line with the growing sentiment that prevention should occupy a more prominent position in the practice of his profession, for, in the foundation of health centres and the establishment of the various clinics in connection therewith, considerable aid will, of necessity, result to the private practitioner.

I cannot resist making reference here to the total inadequacy, both as to quality and quantity of the research work being carried on in connection with our Departments of Health. Sir James McKenzie, in his famous work on heart affections,

has pointed out the opportunities of the general practioner to carry out real investigation. It seems to me that his observations apply with equal force in regard to communicable diseases and that, if the wealth of material in relation to the incidence of these diseases, now being absolutely unutilized, could be sifted and properly analyzed, progress in the control of these diseases would be greatly facilitated.

That the Health Officer should confine himself to the exercise of his powers as a police official, I do not believe for a moment. Like the pilgrim in Bunyan's famous allegory, so long as he is burdened with the weight of this delusion he flounders in the Slough of Despond. The more time he spends on understanding the temperament of his community, and educating them to accept compulsion, the less excuse he finds for the employment of his punitive authority.

Neither do I believe the organization of our work in Preventive Medicine should proceed along half-hearted or haphazard lines. The salvage of human life transcends in importance all other considerations in the conduct of human affairs. The words of the Chief Health Officer of the Province in his review of ten years' progress will be a foreword for future generations. "It is the paramount duty of every government to protect the health of its citizens. Prevention of disease is by far the greatest field of modern medicine. It is not only the most economical, but the most reasonable, successful and satisfactory plan of procedure in respect to disease."

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Editorial

Canadian Medical Association

At the recent meeting of the Canadian Medical Association, held in Winnipeg, 470 members were enrolled. Of this number, the majority came from the Western provinces, with possibly fifty from East of the Great Lakes. The latter included members from Halifax, Montreal, Kingston, Brockville, Lindsay, Ottawa, Hamilton, London, and Toronto. The small attendance must have been a source of keen disappointment to the profession in Winnipeg, who had prepared for at least 1,000. The hospitality shown to visiting members was unbounded. We wish to make special mention also of the courtesy extended by the Ladies' Committee, which was unceasing, and their kindness without parallel. Dr. Montgomery presided in a most adequate manner, and the Chairmen of sections, Drs. Lehmann, Pope, Boyd and Halpenny, proved to be efficient in rule and effective in organization.

There was a general feeling throughout the meeting to the effect that *annual* meetings of the C.M.A. were a mistake. It was thought that if greater prominence was given yearly to the

various provincial organizations, holding the C.M.A. every four years in one of the large centres of the provinces, a greater good to the general profession of the Dominion would result.

University of Toronto

Many of the friends of the university think that carping criticism as to the action of the authorities is undesirable, but at the same time believe that free discussions, especially regarding impersonal matters, are quite in order. *The Practitioner* would like to present arguments from all points of view. We are glad to draw from the *University Monthly* as often as possible. In the June issue there are two communications, giving, in a temperate and common-sense way, opinions rather widely divergent. We believe that we can scarcely have too much of that sort of reasoning.

Professor W. J. Alexander, who has "for a third of a century been in close touch with the University of Toronto," believes that the handing over of appointments to committees or similar bodies has most undesirable results. Responsibility must be fixed and that result can be attained only by putting it upon the shoulders of one man—in case of the University that man is naturally the President.

The control of the University, it is said, should be democratic. If that means anything it means that the University should be controlled by the people of the Province. If they feel that this is not the case the fault lies not with the constitution, but with the administration of it by the successive governments who "are the voice of the people."

Public opinion may be, and often is, unenlightened, but with all its defects, it is, in our land, the only sound and permanent foundation for a public institution.

At present about half the Board of Governors are graduates. In the selection of these the general opinion of the graduates should be regarded, but it is undesirable that by an alteration of the constitution anything should be done to limit the direct responsibility and interest of the Government in University matters.

Colonel Gibson expresses the opinion that the four chief instruments of government provided by the University Act: (1) Board of Governors, (2) Senate representatives of federated Universities and Colleges, (3) Faculty Councils, (4) the President, have produced good results in some respects, but, on the whole, have tended to stifle rather than foster the in-

terest of the graduates. He suggests that a Mayor of the Board of Governors should be nominated and elected by the graduates and entirely disagrees with the suggestion that the Board of Governors, in part at least, should be nominated by graduates. To give the right to nominate without power of election is merely throwing a bone to the graduates and would inevitably result in friction.

The proposal for the election of Governors by graduates is not a radical one. It has been adopted by many universities and has proved effective.

Mountain Climbing

When the idea of mountain climbing comes into our heads we are very apt to consider that it is very like struggling up a steep hill with, perhaps, many irregularities which cause great difficulties for us. Perhaps in former times we were not far wrong, but we have learned in recent years that mountain climbing has become both a science and art, involving many and varied problems.

Six or seven climbers have done 23,000 feet or more. The Duke of Abruzzi reached a height of 24,000 feet, which was a record up to June of this year.

Among the many attempts to surpass this, the best-known is, probably, that of the first attempt to climb Mount Everest.

The Royal Geographical Society and the Alpine Club, working together, organized and sent out a second Mt. Everest expedition, which reached Tibet last April or May. The preliminary arrangements were as nearly complete as possible and included the help of hundreds of Tibetans and their mules. The latter can ascend to altitudes of 20,000 feet, but cannot live at a lower altitude than 7,000 feet. The Tibetans themselves are very like their mules so far as high altitudes are concerned.

In making the preparations they supply the climbers with bottles of oxygen lest they should find the air too rarified to breathe. In addition to difficulties with breathing apparatus, the effects on the muscular tissues are serious. Mr. Mallory spoke of the experiences of his party last year, partly as follows:

"We had proceeded a considerable distance, satisfactorily, I thought, when the leader broke the monotony; he was seen to hesitate in the act of stepping up, then to topple over, and fall headlong downwards. This time he had guessed wrong, his foot had hit unexpectedly against the steepening slope. Some-

how, he had passed in extreme fatigue from the physical state of stable equilibrium. He had become such a man as you may 'knock down with a feather' and this little misadventure had upset his balance."

Another writer in the *Toronto Mail,* in speaking of the difficulties at the great heights, says that to raise a foot over the smallest obstacle requires a tremendous effort, and the climber has the sensation that there is a ten-pound dumbbell attached to each of his hands. This condition becomes something like that of a confirmed alcoholic or a drug fiend. He often "goes to pieces" somewhat suddenly, and falls to his death.

The height of Mt. Everest is just over 29,000 feet. The party had reached a height of about 28,000 feet, thus making the record for height up to the present. The summit was then to them, "so near, and yet so far," and they were reluctantly compelled to turn backwards toward the base of the mountain. We are told, however, that the enthusiasts have not given up hope, but are filled with a fixed resolve to capture that summit before many more years have rolled by.

Care of the Indians

A correspondent, referring to our editorial, remarks on the care of the Indians throughout Canada and gives us some reasons for thinking that in some portions of the country, at least, they are fairly well cared for.

The Department has a resident physician in each of the Western Agencies of Ontario, namely, Fort Francis and Kenora. The Indians, however, may apply to any other physician and, circumstances warranting, the Department will pay the outside doctor's account.

The resident doctor is not required to perform major operations nor to care for patients suffering from long-continued illness, such as typhoid fever, in what is called the village district, but, on his recommendation, the patient is conveyed to a hospital where expert assistance is rendered without charge to the Indian.

In cases where the Indian will do as well or better in the bush, the Department furnishes medicine and supplies food for the patient and his family during the illness.

The Department has established schools in many agencies, both "day" and "residental." Each school has a full equipment for industrial teaching (sewing machines, washers, bake-ovens, farm tractors, horses and cattle, etc.)

The "residential" school has on its staff two expert nurses, a day school teacher, a farm instructor, an expert cook, an expert seamstress, and has electric light and power, and various kinds of good food. It has, also, a physician on telephone call when required, and an infirmary in the building, which contains also a dispensary.

Preventive Medicine

We publish in this issue an interesting paper on Public Health Organization, by Dr. James Roberts, M.O.H., Hamilton. After some introductory remarks as to various sources of infection, he refers to the general broadening out of the views of the profession regarding public hygiene, and, in connection therewith, adds some observations regarding what is now known as Mental Hygiene. He thinks that our knowledge of the latter has greatly increased in recent years, and the investigations now being conducted on the subject will bear rich fruit in the near future.

He considers that the division of the province into two districts with full-time health officers in each was excellent and the results better even than was expected, but the districts are altogether too large for even full-time officers to serve properly, and Dr. Roberts recommends that the districts be further divided, each sub-division having its own full-time health officer with proper laboratory equipment.

It seems only due to Dr. Peter Bryce, for many years Chief Officer for Ontario, to remind our readers that he proposed, and fully elaborated, such a scheme many years ago.

We are glad, under the circumstances, that Dr. Roberts has brought this matter again before the public.

Institute of Public Health, London, Ontario

The Institute of Public Health was established in 1912 by the Provincial Government of Ontario, in aid of Medical Education, and particularly for instructional and practical work in Public Health. At the Institute, in addition to the instructional work here set forth, are carried on the Provincial Board of Health Laboratory analyses for the fourteen counties of Western Ontario, thus serving from 140 to 150 municipalities annually, representing a population of about 800,000. A total of 13,674 analyses were made in the year 1920-21.

The Faculty of Public Health of Western University consists of the Teaching Staff of the Institute of Public Health

and of such intramural and extramural teachers as are required to present full and well rounded courses covering Public Health in all its aspects.

The Institute gives teaching in Chemistry and Public Health to the students of the Faculties of Arts, Medicine and Public Health, and to the undergraduate nurses of Victoria Hospital and St. Joseph's Hospital.

News Items

Gravenhurst Sanitarium

As our readers will probably remember, the Sanitarium for the treatment of tuberculous patients at Gravenhurst, was destroyed by fire in November, 1920. A new building which is being erected in its place will soon be completed. There was a large open air function held close to the hospital, July 5th, when many friends of the institution were present. We are told that, in the addresses delivered, tribute was paid to their friends in Toronto and other parts of the province, and especially to the individual contributors to the million dollar campaign, started a year ago. Many were the expressions of appreciation for the services of Sir William Gage, who commenced his great work for consumptives at Gravenhurst, twenty-six years ago.

The "Lister Ward" in Glasgow Royal Infirmary

The *Medical Press,* February 22nd, tells us that the managers of the Infirmary have decided to demolish the Lister Ward, the reason given being financial necessity. The decision has created keen interest and much protest. It is hoped by a vast number in Great Britain that something may be done to preserve this historic ward.

University of Toronto

The following are the names of the committee appointed during the last session of the Ontario Legislature to investigate matters relating to the management of the University of Toronto, in its relation to the federated colleges, the Medical Council:—

Hon. Mr. Drury, Premier, Hon. Howard Ferguson, Hon. Manning Doherty, Messrs. Dewart, McCrae, Marshall, Watson, Swayze, Greenlan, and Laing.

Sir George Parkin

Sir George Parkin, a great Canadian educationalist, author, and lecturer on Imperial Federation, died in London, England, June 25th. He was, for some years, Principal of Upper Canada College, Toronto.

Canadian Military Hospitals

Hon. H. S. Beland, Minister of Soldiers' Civil Re-establishment, will make a tour of inspection of all the hospitals, sanitoria, and other institutions under the jurisdiction of his department. He will visit the eighteen hospitals operated directly by the Department, and also a number of others containing "government patients." It is also stated that the Government has decided to appoint a Royal Commission to investigate charges made by the War Veterans' Association, as to mismanagement of pensions and insurance granted to returned soldiers.

Oshawa General Hospital

Arrangements have been made to go on with the building of the Robert McLaughlin Memorial wing of the General Hospital in Oshawa. The new wing will contain twenty-five rooms, and will be set apart as a maternity department. It is expected the building will be completed by October 1st.

Diphtheria Immunization

From a letter sent to the physicians of Toronto by Dr. Chas. J. Hastings, M.O.H., we extract as follows:—

The Department of Public Health has for some time been considering plans by which a still further reduction of diphtheria in the city might be brought about.

As to toxin-antitoxin immunization, we believe that our chief effort should be directed to the children of pre-school age. As nearly all of these children are susceptible to diphtheria, they can be immunized without previous Shick testing and the reactions in this group are practically always mild.

If children of school age are to be immunized they should be previously Schick tested as a fairly large percentage are by this time immune to diphtheria and therefore do not need further immunization.

Adults should only be immunized when their Scheck test is positive and they themselves desire the immunization.

To facilitate this work the Provincial Board of Health, through the Local Board of Health, is distributing the material prepared by the Connaught Laboratories for both the Schick test and the toxin-antitoxin immunization. These preparations may be obtained by any physician at the City Hall.

Further, to meet the needs of those unable to pay, or those patients whom physicians would prefer not to deal with themselves, clinics will be opened at the Isolation Hospital, the Hospital for Sick Children and the Women's College Hospital.

If this effort to secure the immunity of our population from diphtheria is to succeed, it must have the support of (and be carried out by) the medical profession.

Sincerely yours,

CHAS. J. HASTINGS,

Medical Officer of Health.

Personals

Dr. A. J. MacKenzie has removed his office to 37 Spadina Road.

Dr. Jos. Graham has removed his offices and residence from 55 College Street, to 112 St. Clair Avenue, W., Toronto.

Dr. Joseph H. Robert removed to his new office, 147 Bloor Street West, July 1st.

Dr. and Mrs. W. J. Henderson, of Cannington, are spending the months of July and August touring the British Isles and the Continent.

Professor Irving H. Cameron sailed for England, July 11th. After spending a couple of months in Scotland and England he will probably return to Toronto in September.

At the Annual Convention of the National Council for Women, at Fort William, June 25th to 28th, Dr. Stowe-Gullen, of Toronto, was elected Provincial President for Ontario. The meeting for 1923 will be held in Halifax. Mrs. R. G. Smythe, on behalf of the members living in Toronto, asked the Council to meet in the latter city in 1924.

Dr. and Mrs. T. S. Chamberlain, of 615 Spadina Ave., Toronto, celebrated their diamond wedding anniversary, July 4th, at a family dinner, at which four generations were present. Dr. Chamberlain graduated from Queen's University in 1862, and was married in the same year. Dr. Chamberlain has lived in Toronto for thirty-two years and was for a long time inspector of asylums and prisons. In his active days he was well known in all parts of Ontario, and, on behalf of his many friends, the writer has much pleasure in tendering to our good friend our hearty congratulations and good wishes.

Obituaries

Ernest K. Cullen, M.D.

The profession of Ontario heard with dismay the report of the sudden death of Dr. E. K. Cullen, of Detroit, July 6th, aged forty-five. He received his medical education in Toronto, and after graduating M.B., from the University, spent one year a resident interne in the Toronto General Hospital. He went to Johns Hopkins, Baltimore, where he lived for two years doing post-graduate work, chiefly with his brother, Professor Thomas Cullen. He then went to Detroit, and before long was appointed Professor of Gynecology at the Detroit College of Medicine. For some years also he was head of the Gynecological Departments of both Harper and St. Mary's Hospitals.

During the war he went overseas with Base Hospital No. 17, U.S.A., holding the rank of Major.

We, who had the pleasure and privilege of knowing him intimately during his student days in Toronto, watched his career in Detroit with deep interest and were pleased beyond words to learn that he was climbing to the top so rapidly. His friends were glad to see him at the Niagara meeting of the Ontario Medical Association in 1921, and his many friends in his birthplace, London, Ontario, were delighted to meet him a few weeks ago at the closing exercises of the Western University, when he delivered an address and conducted a clinic for the members of the Western Ontario Academy of Medicine. So far as is known he was in excellent health up to July 3rd. On that day, after strenuous work from early morning until 2 o'clock, he was suddenly seized with vomiting to the extent of two tablespoonfuls clear blood. He then felt quite comfortable and went on with his work to some extent during the afternoon. At six o'clock a sudden hemorrhage again commenced, when he is supposed to have lost about 70 ounces of blood. The next day he appeared so much improved that his friends ceased to have any anxiety, and telegraphed to his brother in Baltimore, "All going well." On the following day, July 5th, another hemorrhage occurred. This continued until 8 p.m., when he died.

On examination it was found that he had varicose veins of the oesophagus, and a few in the cardiac end of the stomach. Three of the veins had ruptured, and it was from these the fatal hemorrhage occurred.

Petros Constantinides, M.B., M.R.C.S., (Eng.)

Dr. Constantinides, one of the oldest practitioners in Toronto, died at his late residence, June 10th, aged 78.

He was born in Athens, Greece, son of an eminent professor of languages in the University of that city. At the age of twelve his father sent him to a private English school for boys at Malta. When sixteen years old, he went to Edinburgh, where he commenced a course in medicine. After pursuing his studies in that city, Paris and London, he qualified for M.R.C.S. (Eng).

Although not exactly wealthy, he had independent means and travelled extensively for over three years, especially in Europe, Asia and North Africa. He then went to Toronto, where he decided to live permanently. After taking a course of lectures for one session he passed the final examination in the University of Toronto, receiving the degree of M.B. Being a very scholarly man, with an intimate knowledge of the classics, he soon became associated with some of Toronto's best citizens, including such men as the Rev. Dr. Topp, Sir David McPherson, Sir Mortimer Clark, and Dr. Philbrick. Although he commenced practice under most brilliant auspices, he soon grew to a certain extent weary of his profession and in time became more fond of looking after his conservatory than studying new developments in his own profession. We are reminded in this connection of a remark recently made by the able editor of the *Medical Press* (Eng.), who said "a certain factor has to be taken into account when attempting to correlate mental capacity with the size of brain. Given two men of equal intellectual power and the one shall have an immortal name and the other remain unknown beyond his immediate circle—simply an eccentric, though perhaps brilliant, personage."

R. T. Porter, M.D.

Dr. Porter, of Walkerton, died at the General Hospital, of that town, June 27th. He graduated, M.D., from Victoria University, in 1867, and passed the examination of the Ontario Medical Council in 1868.

Society Proceedings

The Canadian Society of Anæsthetists

The second annual meeting of this association was held in Winnipeg, June 20th and 21st, in conjuction with the C.M.A. The members of the organization were given welcome to the province by the Lieut.-Governor, following which, Dr. Samuel Johnston, the retiring president, presented the Society with an exquisite silver-mounted gavel, upon which the historical roster of the presiding officers is to be engraved. Dr. William Webster, in delivering the presidential address, pleaded for the education and training of more medical men and women in the use of the new specialty of pain relief, ethanesal, an improved ether. His plea was substantiated by his report on the advantages that had accrued to 800 patients upon whom this had been used during the past year at the Winnipeg General Hospital. Dr. E. I. McKessen, a distinguished anæsthetist of Toledo, Ohio, and President of the National Anæsthesia Research Society, detailed "Eleven Years' Observation of the Minute Volume of Respiration in Anæsthesia, with a Discussion of some of the Factors Influencing the same," after which Drs. Henry G. Barbour, Raymond L. Stehle, and Wesley Bourne, of Montreal, spoke briefly on "The Studies of Acidosis in Anæsthesia." "The Breathing of Nephritics" was the next communication, by Dr. B. S. Cornell, of Brockville. "It is the experience of surgeons that nephritics stand anæsthetics badly. The acidosis produced by anæsthetics in normal persons is facilitated by the presence of a kidney lesion. Since the degree of acidosis depends on the alkaline reserve it is desirable to have a definite means of estimating the same previous to operation. An improved Levy-Marriot-Roundtree apparatus for directly estimating the H-ion concentration of the blood was used, but found to be of only slight clinical value. Blood differences as thus estimated were too fine. Probably readings of the buffer capacity would have been more valuable. The respiratory centre of the brain seems to be the most sensitive instrument available. Even mild degrees of acidosis usually produce an hyperpnœa easily observed. If in a case of normal heart response to exercise, the respirations do not return to their rest rate within four

minutes a tendency to acidosis is nearly proven, and is at least strongly to be suspected. The administration of sodium bi-carbonate will in many cases control this acidosis, but in a considerable number it is useless." The employment of this simple clinical method, for which the name *Respiratory Index* is suggested by Dr. Cornell, should prove to be of great value in estimating a patient's operative risk. Dr. D. C. Aikenhead, of Winnipeg, in speaking on "The Post-operation Pulmonary Complications in 7,000 Cases of Anæsthesia," reported that of the above number there were only nineteen cases of lung complications and four deaths. Dr. J. A. Heidbrink, of Minneapolis, discussed the use of anæsthesia in dentistry, following which, Drs. Stehle and Bourne, Montreal, spoke, in a highly scientific manner, on the "Anaesthetic Properties of Pure Ether." The session for the day was closed with an address by Dr. F. H. McMechan, of Avon Lake, Ohio, on "Safety First in Anaesthesia," in which he said that in their investigations they had found the average death rate under all anæsthesia within seventy-two hours after operation was one in 250. In order to obviate these preventable deaths more than 200,000 safety first charts had been issued to hospitals and anæsthetists in Canada and the United States. These charts demanded that the surgical and anæsthetic risk of every patient be determined in advance and furthermore, every patient operated on be given the safeguard of five-minute blood pressure readings during the entire operation, so that the surgeon could be assured the patient was always in a zone of safety. These blood pressure readings had been so accurately determined that it was now possible to anticipate the occurrence of shock during operation by them half an hour before any other symptoms would indicate the onset of the condition.

Wednesday morning was spent at the Winnipeg General Hospital at Anæsthetic Clinics, where there were demonstrations of advanced methods of anæsthesia.

Dr. E. I. McKesson, Toledo, opened the afternoon session with a paper on "Nitrous Oxide-Oxygen in Nose and Throat Surgery," in which he pointed out the superior value of nitrous oxide-oxygen anæsthesia in tonsil operations. This anæsthesia in bad risk patients was also emphasized by Dr. A. J. Slater, of Winnipeg, in his paper on "The Welfare of the Surgical Patient." Drs. W. B. Howell, W. G. Hepburn and Wesley Bourne, of Montreal, in their symposium "On the Teaching of Anæsthesia to Medical Students," claimed that the future of the specialty, as well as the advance of surgery and the safeguarding of public welfare, depended in a large measure upon

the proper teaching of anæsthesia to medical students. They outlined the didactic and clinical courses in vogue at McGill University, which seemed to give the most satisfactory results. The scientific session of the meeting was closed with Dr. K. G. Grant's paper on "The Post-operation Incidence of Acetone and Carbon-dioxide Content in the Blood," in which he made a preliminary report on his researches in this matter and the remedial measures he had found effective.

The following officers were elected for the coming year: President, David H. Arnott, M.D., London; Vice-President, Walter L. Muir, M.D., Halifax, N. S.; Executive Officer for the United States, F. H. McMechan, A.M., M.D., Avon Lake, Ohio; Executive Officer for Great Britain, H. Edmund G. Boyle, O.B.E., M.R.C.S., L.R.C.P., London, England; Secretary-Treasurer, Wesley Bourne, M.D.; Executive Committee, J. E. Blezard, M.D., Edmonton, Alta.; W. G. Hepburn, M.D., Montreal; Harry J. Shields, M.B., Toronto; Don. A. Warren, B.A., M.B., Hamilton.

Simcoe County Medical Association

At a meeting of this society, held July 6th, in Barrie, addresses were delivered by Drs. R. T. Noble, F. W. Marlow, and Mortimer Lyon, of Toronto, Mr. Drury, Prime Minister of Ontario, and others. The following officers were elected: President, Dr. C. G. Rutherford, Orillia; Vice-Presidents, Drs. W. J. Scott, Cookstown, Dr. Frank Porter, Waubashene, and Dr. Blackwell, Penetanguishene; Secretary, Dr. H. T. Arnall, Barrie.

Hastings County Medical Association

At the last meeting of this Association, held in Belleville. May 10th, the following officers were elected: Hon. Pres., Dr. Mather, of Tweed; President, Dr. J. Chant; Vice-Pres., Dr. R. Tennant; Secretary-Treasurer, Dr. T. Daley.

Recent Graduates

Recently Licensed Practitioners

The College of Physicians and Surgeons of Ontario announces that in the professional examinations this Spring, the following are successful candidates: Charles Wilson Aitchison, Kingston; John Henderson Alexander, Ailsa Craig; Frank Nathaniel Allan, Wroxeter; James Orton Anderson, Toronto; Robert L. J. Annett, London; Simon Appel, Toronto; William Charles Archibald, Wolfville, N.S.; George Walter Armstrong, Uxbridge; Arthur Clifford Baiden, Kingston; Joseph Edgar Bates, Toronto; Frederick Hume Churchill Baugh, Kingston; Edward Shearman Bird, Gananoque; Carl Benson Bowen, London; Mary Elizabeth Bowyer, Toronto; Truman Leo Boyes, Hamilton; William James Brough, Hamilton; Clayton George Bryan, Toronto; Robert Clifford Bull, Weston, Ont.; Dorothy Jean Burrows, Harriston; Frederick William Bush, Cardinal; Harold Godfrey Bird, Gananoque; William Campbell, Cumberland; Glenford Weir Carrow, Toronto; Rollet Andre wIarson, Barrie; George Edward Case, Dungannon; Sidney Gordon Chalk, London; Albion Somersale Chance, Port of Spain, Trinidad; Lillian Alice Chase, Greenwich, N.S.; John Francis Vickers Chester, Toronto; Irving Murray Cleghorn, Baldur; Charles Augustus Cline, London; Henry Wendell Colborne, London; Wilfrid Raymond Crowe, Orangeville; Lawrence Joseph Crowley, Toronto; Frederick David Cruickshank, Weston; John Frederick Cumming, Chatham; Beverly Pearce Danard, Owen Sound; Murray Scott Douglas, Ilderton; Grant Weldon Duffin, Thorndale; David Eisen, Toronto; Gerald Ford Fairbairn Brockville; Ray Fletcher Farquharson, Toronto Chester W. G. Ferrier, Mimico; Hyman P. Fine, Toronto; John Heber Fisher, London; Eric Gordon Fleming, Cobourg; Howard Price Folger, Kingston; James Alexander Forrest, Toronto; Norman Victor Freeman, Inverary; Aaron Glassberg-Volle, Toronto; Arthur Henry Graham, Toronto; Norman Hamilton Green, Agincourt; Victor Samuel Grigg, Bruce Mines; Arthur Stanley Hale, Toronto; Lloyd Edmund Hamlin, Kincardine; John Adam Alexander Harcourt, Cayuga; Ro-

bert Bloomer Hare, Toronto, George Warren Harris, Rodney; Miln Cobb Harvey, Arthur; William Henry Harvey, Princeton; Kenneth McKellar Heard, St. Thomas; Gordon Edward Helston, Toronto; John Robert Hendry, Toronto; Col. Richards Henry, Drayton; Hubert Willows Hetherington, St. Catharines; Neil Roy Houston, Carleton Place; John Philip Hubbard, Forest; Wendell Lochead Hughes, London; Frederick Theodore Hutton, St. Marys; Franklin Arnold Ireland, St. Catharines; Rose Moore Jewell, Toronto; Kennon Harry Johnston, London; Frederick Lancelot Junkin, Toronto; Peter Joseph Kearns, Montreal; Kenneth Keill, Kingston; Archibald Joseph Kilgour, Cornwall; Dale Murray King, Detroit, Mich.; Pennington Kiteley, Glen Allan; Basil McDonnell Koster, Toronto; William Cunningham Laing, Brantford; W. E. Gladstone Lancaster, Kingsville; Ross Stanley Lang, Orono; Victor Roy Lapp, Hamilton; Walter Wilfrid Lee, Toronto; Joshua Hugh Lewis, London; Wilfrid John Lewis, London; Ernest Weir Linklater, Wingham; Hugh David Logan, Niagara Falls; Daniel O'Gorman Lynch, Kingston; William Edgcombe Mase, London; J. Arthur MacFarlane, Nokomis, Sask.; William George Mackersie, Atherley; John Peat Mackie, Shannonville; Harold Orville Macnamara, Toronto; Noel James Linnington Margetson, St. Kitts, B. W. I. Charles Albert Markowitz, Toronto; Charles Ansley Martin, Milton West; George Graydon Martin, Campbellford; James Rodwell Marshall Martin, London; Earl Gilbert Meritt, Chatham; William Francis Metcalf, Detroit; John Edward Minns, Tweed; Philip John George Morgan, Ottawa; Aubrey R. E. Mounce, Oshawa; Frederick C. Myers, St. Marys; John Clarence McClelland, Brampton; Robert Baird McClure, Toronto; Wallace Burnett McClure, Toronto; Hugh Reid McDonald, Newton; Robert Hugh McDonald, Lakeside; Samuel earl McDowell, Shawville, Que.; Alexander McNeil McFaul, Collingwood; James Richard McGarry, Niagara Falls; Arthur William McGarvah, Windsor; Lola Dell McLatchie, Calgary, Alta; Charles McClellan, Mount Forest; Melvyn McQuitty, Douglas; Elizabeth Nesbitt, Hartshorn, Alta.; William John Nicolson, Trenton; James Murray Ogilvie, Toronto; Francis Joseph O'Leary, Orillia; Walter Stanley Palmer, Toronto; Frederick Rolston Perfect, Toronto; Harry Shaw Phillips, Smith's Falls; John Harold Pilkey, Kingston; Jacob Polack, Toronto; D'Arcy Jerome Prendergast, Toronto; William Richard Quinn, London; Augustus Duncan Roberts, Brighton; William Harold Rose, Morrisburg; Alexander Grant Ross, Halifax; Mabel

Pearl Russell, Toronto; Nathan Shaul, Toronto; Violet Amelia Shaw, Windsor; Leonard Vernon Shier, Toronto; Stanley Sievenpiper, Toronto; Hector Murray Simpson, London; Kenneth Younie Sinclair, Toronto; Henry Alan Lawson Skinner, Guelph; Charles Gordon Smith, Toronto; Thomas Ormiston Smith, London; Russell Whicher Stephens, Wiarton; Warren Ormsby Stoddart, Woodville; Keith Bennett Suddaby, Kingston; Orland Patrick Sullivan, Orillia; Newton Cameron Sully, Wakefield, Que.; Roland Earl Taylor, Burgessville; Maurice Ernest Thomas, Toronto; James Winfred Tice, Toronto; Mary Isabel Tom, Goderich; Dorothy Moody Trapp, New Westminster, B.C.; Stuart Allen Wallace, Ottawa; Melville Clarence Watson, Toronto; Douglas St. John Wigle, Windsor; Claude Vivian Williams, Toronto; Thomas Ninian Wills, Lyndhurst; Reuben Calvin Wilson, Bolton; William Wilson, Toronto; Harry Arkell Wrong, Aylmer; Claude Remell Young, Bath.

Many Successful in Dominion Council Examinations

The names, alphabetically arranged, are as follows:

C. W. Aitcheson, Lougheed, Alta.; E. Bell Tryan, P. E. I.; G. Bicune, Sombre, Ont; I. G. Bricker, Cargill, Ont.; J. E. Brouse, Vancouver, B. C.; P. L. Carroll, Winnipeg, W. L. Chasney, Winnipeg; V. Chung, Victoria, B. C.; D. H. Cleveland, Montreal; I. A. Dickson, Niagara Falls, Ont.; E. Du Vernet, Digby, N.S.; C. M. Eynon, Ottawa; H. Featherston, Ottawa; A. Francis, McKay, B.C.; N. V. Freeman, Inverary, Ont.; A. E. Friend, Wolfe Island, Ont.; I. M. Goodwin, Oak Lake, Man.; I. A. Harcourt, Cayuga, Ont.; W. H. Harvey, Princeton, Ont.; K. M. Heard, St. Thomas, Ont.; Irene Hudson, England; F. O. Ireland, St. Catharines, Ont; I. A. Kearney, Kamloops, B.C.; W. N. Kemp, Vancouver; R. P. Kinsman, Waterville, N.S.; B. E. Knapp, Brockville, Ont.; R. W. Knight, Paris, Ont.; E. Linklater, Wingham, Ont.; W. G. MacLean, Winnipeg; A. T. Mathers, Winnipeg; R. B. McClure, China; W. B. McKee, Manitoba; A. McNabb, Ottawa; F. P. McNamel, Victoria, B.C.; T. A. Pincock, Winnipeg; M. Rady, Winnipeg; H. Rawlings, Toronto; W. Redel, Edmonton; J. Sandilands, Glasgow; J. Semple, Lampman, Sask.; R. A. Seymour, Vancouver; H. A. Skinner, Guelph, Ont.; O. P. Sullivan, Orillia, Ont.; A. W. Treeman, Sidney, B.C.; C. W. White, Prince Albert, Sask.; A. Weigerinck, Brandon, Man.; W. Wilkin, Denfield, Ont.; R. C. Yoerger, Humboldt, Sask.; G. F. Young, Bothwell, Ont.;

Selections

Iodine as a Wound Disinfectant. *Nation's Health.* By F. L. Rector:

The author states that the use of iodine as a disinfectant for the skin, particularly for the field of operative surgery, came prominently before the public in 1905. Among the first to introduce it to the profession were Cannaday, Woodbury, Dannreuther, and Grossick. Grossick was the first to write comprehensively on the subject.

The undiluted tincture and a twenty per cent. solution were first employed. Experimenting to find the proper strength for routine use, Bovee and Neate, of America, and Turner and Catto of England, came to the conclusion that a 3 to 3.5 per cent. solution was best. Kinnaman found that a 0.2 to 1 per cent. solution was far superior to bichloride of mercury. Schantz in 1908 claimed that the irritation caused by the solution stimulates healing so that a smaller scar results. Schantz paints small wounds on the third and fifth day; large ones daily.

Of the sixty-five physicians replying to a questionnaire sent out recently, two use a 10 per cent. solution; eighteen, a U.S.P. 7 per cent. tincture; twenty-one, a 3.5 per cent. (fifty per cent. U.S.P.) tincture; ten, a 3 per cent. tincture; three, a 2 per cent. tincture; and eleven, a 4 or 5 per cent. solution. Several emphasized the importance of having the surface dry before applying the tincture, and recommended the use of alcohol and ether as final cleansing agents before the application of iodine. Grease may be removed with gasoline or benzine.

Objections to the use of the tincture were: (1) the danger of burning, and (2) the sealing of punctured wounds and the formation of a crust on the more extensive wounds which delays healing. The use of bichloride of mercury following the application of iodine is said to be harmful.—*Surgery, Gynæcology and Obstetrics.*

Treatment of Appendix Stump

Galaguier (*Bull. et mém. de la Soc. de Paris*) states that it is difficult to say by whom the idea of burying the appendix-

stump was first brought forward. In the early operations no surgeon employed this method. Originally he carefully removed the mucous membrane with a curette, cauterized the stump, and then closed the opening with a catgut suture. To prevent adhesions and for greater security he tried to cover in the stump with a layer of peritoneum or an appendix epiploica. In spite of these precautions post-operative suppuration often occurred, and about the second week a large abscess developed; after evacuating this the patient rapidly recovered. These accidents became less frequent when the stump was sterilized and buried in a fold of the caecum, and as the burial of the stump was perfected so the results improved. The appendix stump should be buried wherever possible. When the caecum is inflamed, thickened, and œdematous, and when there is peritonitis, this may not be possible. In carrying out this procedure certain points are of importance: the sutures should be placed close round the base, and so not leave a space for organisms from the mucosa to collect and grow; the sutures must not perforate the caecal wall—this is a mistake not always easy to avoid if the caecum is distended and thinned; it is bad practice to tear or bruise the caecal wall with forceps or large needles; the intestinal serosa is very delicate, and should be damaged as little as possible. Another point is that when the appendix has been tied close to the caecum and is cut, a drop of fluid may escape and cause suppuration later. This can be avoided by previously crushing the organ. The cautery is used to divide the appendix, and the surroundings are protected with swabs. These details are of importance, for in a quiet operation no point should be neglected, which will guarantee success. The technique of burying the stump should leave nothing to chance.—*British Medical Journal.*

Auto-Suggestion and the Coué Method

M. Coué's present visit to this country is attracting more attention than any of those he has previously paid us. The way has been well prepared for him, partly by reverent enthusiasts and partly by irreverent persons, who have succeeded in making his name known even to music-hall audiences. M. Coué, who is not, we believe, a member of the medical profession, holds a clinic in his house and garden at Nancy, and to some extent he is in the line of descent of the Nancy school of

hypnotism; he diverges from it partly by not directly seeking to produce the hypnotic state, and partly by placing great reliance on what is called auto-suggestion. He does not refrain from resort to suggestion; on the contrary, he makes use of it freely, his favorite phrase in beginning to treat pain or disability being, "Ca passe," which he makes his patients repeat after him "so fast as to produce a sound like the whirring of a rapidly revolving machine." But he relies more upon inducing patients to think that they are better, or are getting better, or are going to get better. This state of mind he seeks to bring about by inducing the patient to repeat the formula, which is in French, "Tous les jours, à tous points de vue, je vais de mieux en mieux." The English version, M. Coué considers the most satisfactory is "Day by day, in every way, I'm getting better and better." In this way he seeks to influence the unconscious mind, his basic law being, "Every idea which enters the conscious mind, if it is accepted by the unconscious, is transformed by it into a reality, and forms, henceforth, a permanent element in our life." The formula "day by day," etc., or "Ca passe," which is to be translated "it's going," must be repeated very rapidly, so that the contrary suggestion, that the pain is not going, or the asthma is not diminishing, or bad temper is not disappearing, will not obtrude itself. You repeat the phrase "It's going" very rapidly, until you feel justified in concluding the series by exclaiming "going, going, gone!" All this sounds a little childish, but it, at least, fulfils the therapeutic maxim, *primum non nocere*. M. Coué will even use the method in cases of organic disease in an advanced stage, not rejecting the possibility of cure, but admitting its unlikelihood. Here, indeed, seems to lie the risk of the method, since persons with organic disease susceptible of cure by operation or otherwise, may go on assuring their "unconscious" that "it's going" or "I'm getting better," until the condition becomes incurable.—*British Medical Journal.*

Surgical Treatment of Acute and Chronic Pancreatitis
Boston M. & S. J., 1921 By F. B. Lund.

In pancreatic disease the indications for surgical intervention may be acute and imperative, as in acute hæmorrhagic pancreatitis, or may be for the prevention of invalidism from chronic pancreatitis or the alleviation of certain of the symptoms of an inevitably progressive disease, such as the jaundice associated with cancer of the pancreas. It has been found that

only an exceptional arrangement of the common and pancreatic ducts would allow bile blocked by a stone to enter the duct of Wirsung. Not infrequently, this duct and the pancreatic ducts open by two separate openings close to each other in the papilla and such blocking is rendered impossible. Neither can it be produced when, as is sometimes the case, the duct of Santorini is the chief drainage canal of the pancreas, as a free anastomosis between the two ducts then enables either of them to take on the chief drainage function. Gall-stone disease, cholecystitis, adherent ulcer of the posterior surface of the stomach, and even retroperitoneal infection from appendicitis are often accompanied by chronic swelling and inflammation of the pancreas.

As our knowledge of gall-bladder disease has increased we have come to believe that the primary infection causing the cholecystitis and stones takes place, not by the passage of infected bile up the cystic duct into the gall-bladder, but through the lymphatics or blood vessels from the liver. Cases of both acute and chronic pancreatitis can be explained by a theory of the invasion of the pancreatic lymphatics from the inflamed gall-bladder, stomach, or retroperitoneal tissue.

Such a theory would suggest for the treatment of chronic pancreatitis, not drainage of the infected bile through a cholecystostomy, which at best is temporary, but the removal of the source of infection by a cholecystectomy. The author has obtained several recoveries from chronic pancreatitis following drainage of the bile ducts by cholecystenterostomy. The gall-bladder should never be removed for pancreatitis unless it is known definitely that there are no stones in the common duct. A fact indicating the direct dependence of pancreatitis upon infection extending from the gall-bladder is that localized abscesses of the head of the pancreas, with fat necrosis, have been found several times by the author in operating upon a gall-bladder when operation was delayed for several days. The possibility of the development of pancreatitis is therefore an argument against delay in acute conditions of the gall-bladder. —*Surgery, Gynæcology and Obstetrics.*

Experiences with Synergistic Anæsthesia. *Am. J. Surg.*
By J. T. Gwathmey and J. Greenough.

Gwathmey discusses the synergistic action of magnesium sulphate with other anæsthetics and describes in detail experiments on animals.

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Clinically he has used magnesium sulphate with morphine and chloretone in thirty-nine cases; these drugs were employed with nitrous oxide-oxygen and novocaine in twenty-one cases, ether in one case, nitrous oxide-oxygen and ether in eight cases, nitrous oxide-oxygen and novocaine in four cases, and novocaine alone in five cases. The technique employed is described. The authors' conclusions are as follows:

1. Magnesium sulphate may be combined with nitrous oxide or ether for anæsthesia to the advantage of both.

2. The synergistic action of the magnesium sulphate decreases by about one-half the amount of nitrous oxide or ether necessary for anæsthesia.

3. Morphine, magnesium sulphate, and nitrous oxide-oxygen, give more relaxation than morphine and nitrous oxide-oxygen, and frequently as much as morphine, nitrous-oxide oxygen, and ether.

4. With the technique described, a very satisfactory anæsthesia may be induced with reduction or elimination of post-operative nausea, vomiting, pain, distention, pneumonia, and shock.—*Surgery, Gynæcology and Obstetrics.*

When to Extract and when to Conserve Diseased Teeth

Dental Cosmos. By T. B. Hartzell.

When the X-ray shows no bony disease, when evidence of pathologic change cannot be elicited by palpation of the soft tissues over the root ends or by percussion of the teeth themselves with steel instruments, and when the patient is otherwise well physically, one is justified in allowing the pulpless teeth to remain. The extraction of such teeth is justified only by positive evidence that they are the source of an injurious bacterial invasion. In order to demonstrate this fact a careful examination of the patient's blood is helpful. If by exclusion all other sources of infection can be eliminated and there is an increased leucocyte count associated with a secondary anæmia, the conclusion may be drawn that bacterial invasion is going on and that the danger is sufficient to justify extraction. On the other hand, the blood examination may reveal a diminished number of leucocytes. In a case presenting a leucocyte count of 6,500 or less, an increased proportion of lymphocytes over phagocytes, and a secondary anæmia, a positive warning is given that the patient is in serious danger and the extraction should be performed as soon as he can tolerate surgical interference. In such a case only a very limited number of teeth

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DR. JUNIOR: "What! Antiphlogistine on a—burn? I should think it unbearable——'

DR. SENIOR: "Oh, you don't heat Antiphlogistine when you apply it to burns, Doctor. You put it on cold."

DR. JUNIOR: "I never thought of using it except after heating it in the usual way."

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DR. JUNIOR: "But cold Antiphlogistine is indicated in burns. Well, that's a new one on me. I'll try it tonight. Come—I'll play you one more before we knock off."

should be extracted at a sitting. If many were removed the body would be unable to combat the large numbers of bacteria thrown into the blood stream by the extraction because of the decrease in the number of leucocytes.

The examination of the urine should not be neglected. The presence of casts, albumin, sugar, or red blood cells indicates grave conditions which must always have a direct bearing on the conservation or destruction of pulpless teeth, particularly if such teeth present radiographic evidence of deep pyorrhœa pockets or granulomatous root ends.

If in the general examination a patient presents evidence of secondary infection but an increased leucocyte count, operation should be performed and should be done with greater rapidity than when the leucocyte count is decreased.—*Surgery, Gynæcology and Obstetrics.*

The Extraction of Foreign Bodies from the Oesophagus and the Upper Respiratory Passages (Extraction des corps étrangers de l'œsophage et des voies aériennes supérieures.) *Arch. Med. Belges, 1921.* By E. Henrard.

Henrard has extracted a coin from the cricoid stricture of the œsophagus under X-ray control in fifty-five cases.

The screen control method has been assailed as a blind method because the œsophagus is not visible; the contents is seen, but not the container. Henrard points out that œsophagoscopy is also a blind method as it will not reveal the lower part of a foreign body in the œsophagus.

When a foreign body is arrested above the cricoid stricture an attempt should be made first to remove it under screen control. If this fails, its extraction by means of the œsphagoscope should be attempted. If this fails also, external œsophagotomy is indicated.

If the foreign body has not passed the aortic stricture of the œsophagus, extraction under screen control should be tried first, and if this fails the œsophagoscopic method should be attempted or the foreign body pushed down to the cardia.

If the body is in the lower third of the œsophagus, it should be extracted through the cardia after gastrotomy. No attempt at extraction from above should be made in this case, as it would be attended by the danger of bringing the foreign body to the aortic stricture from which it might be impossible to extricate it.

In cases of foreign bodies in the upper respiratory tract (trachea, bifurcation of the bronchi) the bronchoscopic method

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seems indicated, but is very difficult. In Henrard's opinion it would be better to attempt extraction under screen control. In certain cases of bronchial foreign bodies it is necessary to make a thoracic flap opening. The foreign body may then be removed under screen control.—*Surgery, Gynæcology and Obstetrics.*

The Prognosis in Acute Intestinal Occlusion (Le pronostic dans l'occlusion intestinale aigue.) *Presse Med.* By A. C. Guillaume.

This article is a statistical study of the mortality of intestinal occlusion. In 3,829 cases operated upon in the last thirty years the mortality was 63.2 per cent. In cases operated upon previous to 1900, it was 66 per cent., and after that date fell to 52 per cent. This decrease, Guillaume attributes partly to better surgery, but especially to earlier diagnosis.

Of a series of 543 cases, 143 were malignant and had a mortality of 64.3 per cent., while in the remaining 400, in which the occlusion was due to diverse causes the mortality was 56.7 per cent.

The prognosis in various types of cases is discussed in detail with tables of statistics, and there is a particularly inclusive comparative discussion of the published statistics of intussusception in the different periods of life. The author notes, particularly, the gravity of intestinal obstruction due to biliary calculus.

The mortality of ileus is compared with that of strangulated hernia, and the lower mortality of the latter condition is explained as due entirely to earlier diagnosis.

The article is illustrated by tables and five charts.—*Surgery, Gynæcology and Obstetrics.*

The Pathology of Diabetes Insipidus

A contribution to the study of this interesting disease is made by Camus, Roussy, and Le Grand (C. R. Soc. Biologie) who report the results of the pathological findings of a case which came to autopsy. During life the patient had suffered from epileptiform crises, transient paralyses, and a polyuria of seven to eight litres per diem. The cerebro-spinal fluid showed a slight lymphocytosis and increased albumin; the Wassermann reaction was negative. Treatment was without avail, and he died after a severe attack of headache and vomiting. Post mortem, a small abscess was found in the sella turcica,

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replacing the whole of the pituitary body; the rest of the brain appeared macroscopically to be normal. Histological examination, however, of serial sections passing through the optic-peduncular region revealed marked lesions of an inflammatory and degenerative nature, at the level of the paraventricular nuclei. Both sides were affected. Small foci of perivascular haemorrhage, infiltrated with polymorphonuclear leucocytes, were encountered, while the surrounding nerve cells were in a state of chromatolysis, with peripheral displacement of the nucleus and vacuolation. These findings are in accord with observations reported on other cases, and lead the authors to suggest that the origin of the polyuric syndrome should be placed, not in the pituitary, but in the grey matter of the nuclei of the infundibulum and the tuber cinereum—an hypothesis which is supported by a considerable amount of experimental evidence.—*British Medical Journal.*

Brow Presentations

According to Eymer (Zentralbl. f. Gynäk.) persistent brow presentation occurred thirteen times in 10,000 labours at the Heidelberg clinic. In two cases each, contracted pelvis, pendulous abdomen, or twin birth was concerned etiologically. The average duration of labour was seventy-nine hours, and birth took place spontaneously in six instances, in half of which the child was born alive. The operative procedures found necessary were osteotomy in three instances, Caesarean section in one, perforation in one, and forceps delivery in two. There was no maternal mortality, and the fœtal mortality (two syphilitic cases being excluded) was unusually low—namely, eleven per cent. A conservative attitude is recommended with regard to treatment. Prophylactic correction is not recommended; it is fraught with considerable maternal risks, and is only applicable in early stages at a time when spontaneous correction may ensue. Cæsarean section is not justifiable except in cases in which it is indicated on maternal or fœtal grounds, which are independent of the existence of the brow presentation. Spontaneous birth of a living child, after protracted labour, was observed in two cases in which, before admission to the clinic, fruitless endeavors to deliver by forceps had been made. Seitz (Ibid.) records thirteen cases from the Giessen clinic without maternal or fœtal mortality. This exceptionally favorable record is quoted in support of expectant treatment, but it is admitted that in cases of contracted pelvis, which predisposes to brow presentation and complicates its

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management, delivery, although possible in occipito-posterior presentation, may be impossible *per vias naturales* in brow presentation.—*British Medical Journal.*

Hydatid Cysts of the Abdomen Simulating Ascites: Preperitoneal Hydatid Cysts (Kystes hydatiques de l'abdomen à type ascitique—Kystes hydatiques prépéritoneaux. *J. de chir.* By A. Lamas and D. Prat.

The authors have operated upon two cases of hydatid cysts which, clinically, suggested abdominal ascites, due to tuberculosis. There was a large, progressive, and diffuse abdominal distention, which, upon examination, seemed to have all the characteristics of distention due to fluid. Digestive disturbances from visceral compression, œdema of the lower extremities, evidence of collateral circulation, and profound intoxication were present.

At operation, in each instance, an enormous amount of fluid was evacuated. In some cases this was purulent. Escaping in the fluid were numerous small cysts, in various stages of degeneration. The wall of the cavity containing this fluid was external to the abdominal cavity. Beneath the thickened posterior wall the intestines could be seen.

Heretofore the origin of the large cysts was supposed to be preperitoneal, because they are situated between the muscles of the abdominal wall and the peritoneum. On the basis of their studies, however, the authors have come to the conclusion that they originate directly from the peritoneum.—*Surgery, Gynecology and Obstetrics.*

Decapsulation of the Kidneys

Fawcett (*Guy's Hospital Gazette*) discusses decapsulation of the kidneys in subacute or chronic parenchymatous nephritis, and quotes the case of a man, aged thirty-nine, suffering from subacute tubal nephritis, with some interstitial change and uræmia. Under treatment in hospital for three months, the blood urea fell to normal—namely, 0.29 gram per litre—and his general condition improved, the hæmaturia disappeared, and the œdema, headache, and dyspnœa became less, though the quantity of albumin remained high at eight to ten parts per 1,000. During two months' absence from hospital the symptoms returned and decapsulation of both kidneys was performed. The patient rapidly recovered from the operation, and within three or four days the œdema and albumin became

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considerably lessened, though not entirely disappearing, and his general condition has remained satisfactory. The presence of cardio-vascular and interstitial changes, in addition to the tubal nephritis, accounted for there not being still greater improvement, since such good results cannot be expected in the former type of case as in the latter. Decapsulation is contraindicated in all cases of advanced granular kidney, with high blood urea and deficient urea excretion.—*British Medical Journal.*

Iron in Post-Influenzal Anaemia

Lindberg (*Acta Medica Scandinavica*) has observed nineteen cases of profound anæmia, which he traces to a recent attack of influenza. In as many as eighteen cases the patients were women, and most of them were middle-aged. The anæmia did not in any case develop in direct continuity with the attack of influenza, but some months later. In seventeen cases the influenza itself had been of an apparently mild and benign character, and only in two cases had there been serious complications. The most prominent symptom was lassitude, and in a few cases there was shortness of breath. In no case was the hæmoglobin above fifty per cent., and in twelve cases it ranged from fifteen to thirty per cent. In ten cases the number of red cells was below two and a half million. The leucocytes showed no pathological changes, but the red cells showed various abnormalities. There was, however, no evidence of pernicious anæmia, such as a high colour index. Encouraged by the researches of Lichtenstein into the effects of large doses of iron on the anæmia of infancy, the author treated his cases with heroic doses of reduced iron, one gram being given three times a day before meals, as a powder, with 0.5 gram of sugar. The results were prompt and obvious; in about seventy per cent. of his cases the hæmoglobin was doubled within two months, and in three cases it was trebled within six weeks. With this improvement in the blood picture there was a notable change for the better in the clinical picture, and in no case were symptoms of poisoning by the iron observed. It did not even induce constipation. The cheapness and simplicity of this line of treatment are also stressed by the author, who found that arsenic and the timid exhibition of small doses of organic preparations of iron were useless in this class of anæmia.—*British Medical Journal.*

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Original Communications

Radium in the Treatment of Diseases of Women*

By W. H. B. Aikins, M.D.C.M., L.R.C.P. (Lond.), F.A.C.P., Consulting Physician, Toronto General Hospital, Hospital for Incurables. Past President, American Radium Society, etc., etc.

The successful treatment of diseases peculiar to women will always be difficult because of the fact that pathological conditions are seldom reported until the disorder is far advanced. The unselfish motive which prompts many women to hide their ailments in order to prevent any anxiety on the part of their friends is, of course, praiseworthy, but short-sighted, for too often during this period a benign condition which might have been easily treated has become malignant, or a malignant condition has been advancing beyond the stage where definite aid might have been given. The fear of cancer and the fear of surgery contribute to the cause of delay. Both these fears, however, should be greatly mitigated when radiumtherapy becomes more widespread, for, with early consultation, the chances of cure by means of radium rather than the knife are very much higher. Then, too, radium treatment is easily undertaken, it is not painful, and, except where very heavy dosage is employed, it has no serious or untoward after effects. One cannot urge too strongly the necessity of warning patients of the danger inherent in any abnormality of function or of tissue, no matter how minor such disorders may appear. Such warnings cannot be reiterated too frequently, for, unfortunately, the disease is often well advanced when the first signs of disease are evident. However, the patient is not always

*Read at the meeting of the Ontario Medical Association, Toronto, June, 1922.

the culprit. There is, very often, too great laxity on the part of the physician. Speaking of cervical cancer, Bandler [1] says: "The failure on the part of the physician to make a thorough bimanual and tactile examination and to examine thoroughly with the aid of a speculum and the use of the sound; . . . . the failure to consider all cases at this period and even much earlier, as malignant unless another diagnosis can positively be made; all these are factors in making cervico-uterine carcinoma the almost hopeless disease that it is."

Cancer of the Breast.

There is diversity of opinion as to the best method of treating cancer of the breast, but there is practical unanimity on the advisability of operating in operable cases. However, it is now generally conceded by surgeons of liberal views and wide experience, that pre-operative exposure of breast carcinomata to radium is most important. Not only the breast itself, but the whole area about any tumor mass is fully rayed from six days to three weeks before operative procedure is undertaken. This has the effect of closing the lymphatic channels, and thereby thwarting metastases. Every patient in whom the breast has been removed for carcinoma should receive post-operative radiation. This may be given early, before the sutures are removed, and should be repeated in six or eight weeks. The histological changes which have been shown to be produced in radiated tissues prove that the effect must be of benefit, and clinical evidence justifies one in that opinion. It is not uncommon for small nodules to develop along the line of suture after amputation of the breast. Radium treatment will cause disappearance of these masses without recourse to further surgical procedures.

A patient, thirty-six years of age, had had the left breast removed for carcinoma in October, 1914. In May, 1915, she noticed some areas of thickening along the lower end of the line of incision. There were four separate nodules, each about as large as a split pea. Exposure of these points to 120 milligram-hours of radium treatment resulted in their complete disappearance.

The treatment of inoperable cancer of the breast has not yet been standardized. Pfahler [2] maintains that such cases should be treated by the introduction of radium needles into the mass. This is followed by a shrinkage of the mass, and, in some cases, operation is made possible. This treatment is moderately new, and it is really too soon to estimate its value. Clark [3] favors the use of radium or X-ray both before and

after all breast operations. He states that large superficial ulcerative carcinomata of the breast often respond beautifully, shrinking rapidly and granulating over with healthy tissue.

Chronic Mastitis.

Correct diagnosis is of the utmost importance. The development of carcinoma of the breast is usually well advanced before nodules appear. For this reason and because of its rapid development the great cry has been for operation as soon as possible. However, this view must certainly be modified in face of the results obtained by the use of radium in chronic mastitis. In this condition one often finds axillary glands associated where the involvement is purely inflammatory. The beneficial effects of radium in chronic mastitis are well exemplified in the following cases:

Case No. 985, aged 45, presented a condition of an irregular nodulated mass in the right breast, ¾″ by 2½″. As a small drop of pus could be expressed from the nipple the condition was diagnosed as inflammatory and we advised against operation. Radiation was given in May, 1917. The patient did not return for two years, during which time she had been in good condition, but had experienced some pain in the breast. In March, 1920, and subsequently, deep radiation was given. In June, 1921, induration had materially lessened, but there was a small ulcer of the nipple, which was thoroughly rayed. When last seen in November, 1921, the patient's condition was most satisfactory.

Case No. 309, aged 47, had had a lump removed from her left breast in 1906. There was no recurrence, but a lump developed in the right breast subsequent to operation. It had gradually increased in size and occasionally gave rise to some pain. When first seen, in August, 1912, the mass was about 2½″ by 3½″ and was freely movable. Radium treatments were given at six-week intervals until February, 1913, after which time she was considered to be clinically cured. In March, 1917, she reported, and examination showed the breast to be soft and pliable, no mass could be felt, but a small gland was present in the axilla. In August, 1919, examination showed total disappearance of the tumor mass and enlarged gland.

Case No. 768 was first seen in January, 1916. At that time there was an indurated area as large as a hen's egg in the left breast, but there was no retraction of the nipple. She was rayed in January and February of that year, and again in January of the following year. The condition at the latter

date was most satisfactory. In May of this year she reported and showed no evidence whatever of induration. She has experienced no recurrence.

Paget's Disease of the Breast.

The use of radium in Paget's Disease of the Breast is most satisfactory if the disease has not advanced too far. The disease appears first as a keratosis of the nipple, and at this stage, if there is no glandular involvement, radium should be used, as results with it are all that could be desired. Quigley,[4] although he inclines toward operative procedure, reports 66 per cent. cures in radium treatment of Paget's Disease, and all of these cases reported have remained well for four years. MacKee[5] reports three cases cured by radiation which have remained so for 2, 3, and 6 years. In my own experience, I have had some excellent results, of which the following cases are typical:

Case No. 1795, aged 47, showed fully developed breasts with both nipples somewhat firmer than normal. The left nipple showed commencing Paget's Disease, with a small ulcerating area. A treatment was first given with a light, unscreened flat applicator for 6 hours. This was followed after a month by a heavier and deeper raying. At intervals afterward, treatment was repeated with the result that the patient was freed from disease.

Case No. 2620, aged 70, had experienced roughness and scaling of the left nipple, for about two years. During the previous six months the lesion had increased in size and tenderness until, when first examined, the ulcerated area was about two inches in diameter, slightly indurated around the nipple. A heavy radiation with a plaque 4 cm. x 4 cm. containing 10 milligrams of radium element was given at this time, and again later when reaction had subsided a prophylactic dose was administered. One month later the condition presented a normal appearance with no evidence of disease.

Carcinoma of the Vagina.

Carcinoma of the vagina is a rare condition and one which does not respond well to surgery on account of the very extensive distribution of lymphatics. It has been treated with radium, however, with much more success. Stacy[6] reports fourteen cases in all of which the local condition was controlled, although extension was not prevented. She considers that radium and X-ray treatment hold out much better chances of cure than surgery.

Carcinoma of the Vulva.

The results obtained by the use of radium in carcinoma and epithelioma of the vulva are much more encouraging. I have not met many cases, and they have, in some cases, not been satisfactorily followed up, but certain results in this condition have been excellent.

Case No. 654, aged 78, had an epithelioma of the right labium excised in October, 1914. She reported for radium treatment in December, 1914, when a thorough radiation of the area was given. In June, 1915, when she reported for treatment enlarged glands had appeared in the left groin three months previously. These were removed surgically, and showed squamous celled carcinoma. The area of operation was then fully rayed and in August there was no sign of recurrence. The condition showed no sign of disease in December, 1915. In view of the very extensive glandular involvement at the time of operation this is considered a most satisfactory result.

Case No. 393, aged 27, nullipara. For four or five months before being seen the patient had noticed a constant discharge from the vulva. At first watery in character, it gradually became thicker in consistence, and was occasionally blood-stained. For two months she had noticed a swelling in the vulvar region, and during that time there had been occasional twinges of pain, but these were never severe. "On examination a fungating mass was found filling up a considerable part of the vestibule. In the centre of it the orifice of the urethra was situated. The growth extended more toward the floor than the roof, and infiltrated the lower wall to a distance of half an inch above the orifice. The surface of the growth was hard, friable, and bled easily. The inguinal glands on both sides were large, hard and matted. A piece was excised from the primary growth and examination showed it to be squamous epithelioma." A free operation was done, removing a portion of the mons veneris, and upper parts of the labia majora, the body of the clitoris, labia minora, the vestibule, and lower part of the anterior vaginal wall. The removal of the inguinal glands was undertaken ten days later. The patient made an excellent recovery. To guard against recurrence she had radium treatment in the form of flat applicators. This was begun two months after the first operation. She had several exposures on successive days, making a total of 270 milligram-hours. Three weeks later she had further successive exposures, amounting in all to 600 milligram-hours to

the vulva, and 150 milligram-hours to the groins. A month later she had two further exposures. As a result of this radiation the vulvar and inguinal scars became quite soft and pliable. There has been no recurrence. She subsequently married, had a child by Cæsarean section, and is now well, nine years after the operation.

Cancer of the Uterus.

When we come to carcinoma of the cervix we must have a classification because the results are manifestly different as the disease progresses. We have classified our cases into four groups: (1) Young or beginning; (2) Borderline; (3) Inoperable; and (4) Advanced or recurring.

Group 1. In young or what has been heretofore known as the operable stage of cancer of the cervix, we use radium in preference to other single agents, because the virulence or degree of malignancy encountered in even a very early case of cancer of the cervix is entirely out of proportion to the extent of the lesion—this, of course, by reason of the fact that the cervix is so intimately connected with the large lymphatic system. Ochsner in 1920, gave up operating on cervical cancer, and in 1921 he made the following statement[7]: "For many years I used a cautery iron of large size because it would carry the heat far beyond the point of cauterization. During the last four years since Dr. Schmitz began to treat my cases of cancer of the uterus with radium, I have reduced the number of operations. This year I have not operated in a single case of carcinoma of the cervix." This radical view expressed by Ochsner and others caused many outstanding gynæcologists to carefully study their statistics and employ radium instead of the knife. A noted gynæcologist of Baltimore found that, of 211 carefully selected cases of very early cervical cancers operated on with full confidence that all the pathological tissue had been removed, only 19 per cent. remained alive after a period of five years. At the recent meeting of the American Medical Association in St. Louis, Clark, of the University of Pennsylvania, reported 22 per cent. recoveries in 600 cases of cancer of the cervix after a five-year period, and, as Clark points out, in the distinctly operable type, radium should have, then, a higher percentage of cures than could possibly be had by a complete Wertheim operation, and this with no operative risk. The consensus of opinion at present is opposed to operation in so-called operable or beginning cancer of the cervix, but the use of radium tubes in the cervical canal is advocated, with, in suitable cases, implantation of radium needles

in the involved tissues. Many are employing X-ray as an adjunct treatment by raying over the pelvic and sacral region. In this plan of procedure I quite concur, and would urge surgeons always to give their patients the benefit of radium, instead of operation, as of more lasting good.

Group II. Borderline. This is the group that is so disastrous for the surgeon, but, as the series of cases grows larger, it would seem to be ideal for radium. Unfortunately, very few of our series of cases belong to this group. After the diagnosis has been made the patient is submitted to operation and it is only when the abdomen is opened that the extent of the growth can be ascertained. So good an authority as Clark, recommends that Group II be treated with radium only.

Group III. Inoperable. In this condition my experience has been that of Schmitz[8], who furnishes the following statistics: In cases in which operation was impossible certain cases were rayed and then operated upon, certain ones were cauterized and then rayed, and in certain instances radiation alone was used. In the latter group by far the best results were obtained—66% alive, as opposed to 31% and 20% in the two previous groups, respectively. From these statistics it is evident that radium is the treatment of choice in this condition.

Group IV. Advanced or Recurring. In this group we hope for nothing but palliative measures. However, the reports from a great many different observers show that in 50% there is a local healing of the growth, in 60% hemorrhage ceases, and in 50% the foul discharge is stopped. Pain is relieved, leukorrhœa disappears, bladder irritation is relieved in 50% and rectal irritation in 60%. "As a palliative," says Clark,[9] "we have never obtained results with any other method that have even approached those secured by radiumtherapy."

In cancer of the fundus, however, our methods are entirely different. Always radiate before operation, and if, after waiting for six weeks to get the changes which occur in the tissues following this exposure, the chances are that a lesser operation only will be required, then immediately after the operation ray again. On old or terminal cancer we condemn radium as we condemn all other known agents, but radiumization may be used to clear up an unsightly slough, stop a foul discharge, check a continuous hemorrhage and permit the patient's last days to be more comfortable. Like surgery, radium must, however, be used with caution in these terminal cases.

As regards dosage, we have obtained our best results from comparatively small amounts of radium over longer periods.

the total amount given being from 1,500 to 2,000 milligram-hours. This dose is repeated in six weeks if thought necessary, but we have found, in common with a great many others, that if two doses are without marked effect, there is little use trying it further. There is a certain percentage of cases in which the cancer is not retarded.

Uterine Fibroids.

The effect of radium rays on uterine fibroids has been so far definitely established as to make radium a specific for certain types of this condition. However, certain care must be exercised in the choice of cases to be radiated. In patients under 40, where there is danger of producing an early menopause, much care as to dosage must be used. In cases of very large fibroids and in those complicated by an inflammatory process, operation is indicated. Radium should not be employed in submucous or subserous fibroids where there is a suspicion of malignancy in the body of the uterus. The use of radium should be avoided where pelvic infection is present, as latent infection may be spurred to action by radium rays.

A very enlightening and comprehensive paper on this subject has recently been published by Miller [10]. He reports a series of 183 cases of myoma of the uterus and myopathic bleeding treated by radium. He does not particularly stress the results of radium treatment, as he considers that they are now well established, but he gives a very fair estimate of the comparative value of radium and surgery in this condition.

It may be stated that radium should always replace surgery in medium-sized fibroids occurring in patients over forty and in others who are poor surgical risks, or who are opposed to surgical procedure.

We have treated sixty cases of fibroids with practically constant results, viz., a cessation of abnormal bleeding, in many cases resulting in a menopause, a marked decrease in the size of the tumor, and a very marked improvement in the general well-being. This is effected very often after one radiation but more complete results are secured by administering such subsequent treatment as seems to be indicated, at six-week intervals. Smaller doses carry the advantage also of producing no systemic shock.

Leukorrhœa.

The effect of radium on leukorrhœa, which is often coexistent with a fibroid condition, is often remarkable. I have had several cases in which this discharge has quite cleared

up under radium treatment. This result is corroborated by Clark,[9] who states that 19 cases who had previously had profuse leukorrhœa were entirely relieved by this treatment. He considers these results as noteworthy in view of the fact that one might reasonably expect that changes produced in the endometrium and uterine blood-vessels might lead to a permanent and troublesome discharge. Curtis[11] reports that chronic leukorrhœa of cervical origin is, in most instances, amenable to cure through dilation or strictures and treatment with small doses of radium applied at infrequent intervals.

Menorrhagia and Metrorrhagia.

Most brilliant results are obtained in the use of radium in menorrhagia and metrorrhagia which is not associated with fibroids—for instance, in cases of fibrosis which is not true arterio-sclerosis or fibrosis, but is caused by a diminution and atrophy of the musculature, resulting in an increase of fibrous stroma, and where uterine compensation is lost with consequent bleeding. Paul de Grais, of Paris,[12] states that, after carefully observing many cases under treatment, he is warranted in stating that when these conditions "are caused by hemorrhagic metritis, uterine sclerosis, or fibromata," radium is able to produce a cure. In his opinion the results obtained in these conditions are sufficient evidence to warrant radium being considered as a "true uterine styptic." Matas[3] reports 78 cases of metrorrhagia treated with radium. Of these, 64 were fibromata and fourteen the so-called "essential type" of uterine hemorrhage. In metrorrhagia of the menopause where granular metritis or other endometrical pathology appears, he recommends radium when standard treatments fail.

A striking example of the effect of radium in essential bleeding is found in the case of Mrs. X., Case No. 2,256, aged 53, who for three years had had intermittent and profuse hemorrhages, which had left her in a very exhausted condition. Examination disclosed a slight enlargement of the uterus, and it was thought the menorrhagia was due to a diseased mucosa. In September, 1920, she had a seven days' flow, in October, two bleedings—each of which lasted seven days; in November one, lasting six days. In December, she was referred to me for radium treatment, and a 10-milligram tube was applied for 48 hours. Similar radiations were given in January and February. In April the uterus had decreased to practically normal size and there had been no evidence of discharge since the first radiation.

As further examples of the value of radium in uterine hemorrhage, may I cite the following:

Case No. 2,481, aged 27, had had uterine hemorrhage since puberty. She had undergone several operations, curettages, etc., with no improvement. The bleedings often lasted a month. On examination a hardened cervix was found. Physical examination was negative. On June 3rd, 1921, 600 milligram-hours of radium were given *intra uteri*. One year later the patient reported that bleeding had entirely stopped since the last radiation.

Case No. 2,146, aged 32, showed a condition of fibrosis uteri. She suffered from menorrhagia for two years. During the six months before she came for treatment, bleeding had been practically constant. When first seen her hemoglobin was 35%. Four hundred and eighty milligram-hours of radium were given *intra uteri*. One year later menstruation was normal in time and duration and the patient was restored to her normal health.

Case No. 1,981, aged 47, had a uterine fibroid with resulting severe menorrhagia. Three series of treatments of 700 milligram-hours each resulted in complete cessation of bleeding. The patient had lost weight and her hemoglobin was reduced to 40%. After treatment she had gained 14 pounds in weight, and showed a hemoglobin of 80%.

Case No. 1,898, aged 49, had a fibroid of the uterus which had been rapidly increasing in size; menses occurred every three weeks with resulting loss of weight and strength. Treatments of 480 milligram-hours per dose were given at intervals of eight weeks. The fibroid practically disappeared; there is no further hemorrhage, and the patient is generally well.

Leukoplakia of the Vulva and Vagina.

Most encouraging results have been obtained in radium treatment of leukoplakia of the vulva and vagina. Conditions of long standing have shown remarkable improvement.

Case No. 818, aged 53, had had an irritable spot on the vulva for about 15 years. It had been excised in 1914. She remained well for six months, when irritation recommenced, and she came for treatment in April, 1916, when the condition was one of leukoplakia of the vulva with thickening of the posterior vaginal wall. This was radiated at monthly intervals, and in August the diseased area was healed with no evidence of the growth.

Case No. 916, had experienced some pruritis with leukoplakia of the vulva. She first reported in October, 1916, when a radiation was given. A second exposure was given early in

November, and a third late in November. When seen in December, there was no evidence of leukoplakia.

Case No. 2,661, aged 75, had had an eczematous condition of the vulva for over 30 years. The labia showed marked leukoplakia of an advanced type. She reported first in October, 1921, and received treatments in October, November, 1921, and February, 1922. She was seen early in June, and her condition was entirely satisfactory.

The citation of these few cases gives a general idea of the scope and value of radium in the treatment of diseases of women. While radium seems simple of application, radium-therapy requires long experience before it can be effectively employed with efficiency. Surgical acumen cannot be acquired in a few months or a year. Clear judgment in the use of radium demands ripe experience in all branches of medicine and surgery. Such qualification cannot be secured in a few months, although this is the length of time required for the acquisition of a diploma in the newer noxious parasitic cults.

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The Application of Radium in Disease of the Skin*

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From the historical standpoint, it is of interest to note that the first suggestion of the use in therapeutics of the unique physical agent, Radium, occurred when Becquerel, accidentally carrying a tube of Radium in his waistcoat pocket for some hours, found that, about two weeks later, a severe dermatitis occurred on the underlying skin; this was the famous "Becquerel burn" as a result of which the action of Radium on living tissues began to be studied.

In a paper of this kind, it is not proposed to enter into the question of the physics of Radium, and one, therefore, proposes discussing the scope of Radiumtherapy in Disease of the Skin from the clinical side, such observations being based on one's experience during the past twelve years. For this purpose a rough classification of the various skin conditions in which Radium may be advantageously employed is:—

(1) superficial skin lesions—Chronic Eczema, Pruritus, Psoriasis, Lichenification, etc.

(2) such inflammatory diseases as Coccogenic Sycosis, Acne Vulgaris, Lupus Vulgaris and Lupus Erythematosus.

(3) vascular new growths, benign, malignant and pre-malignant, such as Papillomata, Keloid, Epitheliomata, Sarcomata, Leukoplakia, etc.

In persistent patches of Chronic Eczema, Psoriasis, Lichenification, the use of short exposures of the less penetrating rays has a distinct value in causing retrogression. In persistent pruritus without evident cause, by means of short exposures of five to fifteen or twenty minutes every day or every other day for three treatments, the analgesic action of Radium is very marked and excellent clinical results may be obtained.

In the treatment of such conditions as Acne Vulgaris, Acne Rosacea, Sycosis, the more penetrating Beta rays or the Gamma rays of Radium may be used as accessories with considerable benefit.

In Lupus Vulgaris and other tuberculous skin lesions, excellent results have followed the employment of Radium in sufficient dosage to cause destruction of the diseased area.

* Read at the Academy of Medicine, Toronto, January 10, 1922.

Radium is of particular value when the lesions are so situated that they are inaccessible to other methods of treatment, as in the nasal or buccal cavities.

A case in point was one which had been of ten years' standing when seen in 1911. The condition had begun on the mucous membrane of the left nostril and gradually spread in spite of various local treatments—cauterization, curettage, X-ray. When first seen, the appearance was most distressing, the margins of the nostrils being covered with large unhealthy granulations. There was a free foul discharge from the nasal cavity. Under Radium treatment, the diseased tissue was destroyed and healing took place.

Another interesting case was that of a professional colleague who developed a tuberculous ulcer on his finger by being cut with the edge of a bottle which contained sputum positive to tubercle bacilli. Rapid healing took place as the result of a destructive dose of a small Radium plaque.

In Lupus Erythematosus of the discoid type, the use of the Beta rays of Radium has proved of undoubted value in many cases; sufficient exposure should be given to produce a fair skin reaction. Personally, the writer has never seen any untoward results following the use of Radium in this disease, and frequently, a marked improvement has resulted.

In the treatment of the vascular nævi and angiomata, some of the most striking results from the use of Radium may be obtained. Wickham and Degrais in Paris did a tremendous amount of work in this field and established Radium as the therapeutic agent in these conditions.

Three types of vascular nævi are to be recognized:—(a) the flat "port wine" mark, (b) the so-called "strawberry" mark, and (c) the "Angioma Cavernosum."

In the "port wine" stain, a varying degree of improvement can be obtained by the use of flat radium applicators screened with one-tenth of a millimetre of aluminium, for short exposures; one must avoid too much reaction; otherwise, unpleasant later effects may result, such as the production of telangiectasia and atrophy of the skin. If one is prepared to take plenty of time, it is my belief that a considerable improvement from a cosmetic standpoint can be effected.

The "strawberry-mark" or "Nævus Vasculosus" is elevated to a greater or less extent above the surrounding skin. It is a lesion which responds most satisfactorily to treatment by the Beta rays of Radium. Mackee says that "the results of Beta-ray therapy are so striking, so perfect, that they may

be placed among the most notable achievements of Radium-therapy in the treatment of cutaneous affections." One endeavours to produce a gradual disappearance without any or very slight visible reaction. Small doses at four to six weeks' intervals are usually sufficient to produce excellent results.

In the cavernous nævus, the deep vessels are affected, and to a varying depth, depending on the type of tumor. Sometimes, a naevus vasculosus may involve the overlying skin or this may be quite free. Radium plaques are used by preference, and if the lesion is large, enough may be arranged to produce a "cross-fire" action.

The following clinical reports may be of interest as examples of these lesions:

Figure 1 shows a nævus vasculosus of the right cheek in a baby seven months of age. The lesion was noticed first four days after birth, and had been gradually increasing. In December, 1916, when the patient was first treated, the mark was one inch in length, by one-half in width, was dark red in color and elevated one-eighth of an inch above the surrounding skin level. In March, 1917, the second photograph was obtained (Figure 2), showing a very excellent cosmetic result.

Fig. 1

Fig. 2

A very marked case was one which combined all the features of the angiomata. The skin was a deep purple-red, studded with angiomatous nodules. There was considerable involvement of the lip, extending through to the mucous membrane. On pressure the blood could be driven out to a certain extent but not entirely. None of the tumors

pulsated. It was one of the early cases; the patient had come a considerable distance, and had only a limited time at his disposal. We were both therefore anxious for a quick result, and more radiation was used than one would have been inclined to employ could the dosage have been repeated every few weeks. As a result fairly severe reaction took place, which was rather painful for a short time, but the result was excellent. The nodular appearance is nearly all gone, the distorted lip has greatly improved, and the color has faded to a considerable extent.

New Growths.

In the treatment of such benign, though potentially malignant new growths, as Papillomata and Senile Keratomata, the use of the Beta rays of Radium is of great value. A slow degeneration of the proliferated epithelial cells together with contraction and obliteration of the blood vessels supplying each individual papilla takes place, and, in four to six weeks' time, the dried-up excrescence drops off, leaving a smooth healthy skin surface.

The treatment of Keloids had always been rather unsatisfactory until the advent of Radiumtherapy. Sir Frederick Treves, in 1909, spoke of the vanishing of Keloids by Radium application. In the report of the London Radium Institute for 1913, it is stated that "Keloids give excellent results when treated with Radium, and a general improvement, if not complete cure, can be safely predicted. In tender and painful keloids, the anæsthetic effect of Radium is generally very marked and appears early in the treatment." Many other observers have reported favorable results. In 1918, the writer reported nineteen cases of keloid treated favorably by means of Radium, and more could be added since that date. It is advisable, by suitable screening, to cut off the softer Beta rays and thus avoid surface irritation with the possible production of telangiectases.

Some illustrative cases may be mentioned. In January, 1915, a girl 5 years of age was treated for a very extensive keloid which had followed a severe burn sustained six months previously. The keloid tissue was present on the right thigh, abdomen, chest, and inner aspect of the right arm. Radium treatment was used at intervals of about two months, and at the end of a year the surface of the skin was practically even and the scar tissue supple, and not painful.

In another patient, 32 years of age, keloid growth had taken place as a result of burns sustained in a gasoline ex-

plosion. There was extensive keloid growth on the extensor surfaces of both hands and forearms, and the parts were so bound down that the wrist and fingers were fixed, particularly in the left hand. X-ray treatment had been given without any benefit. Radium treatment was begun in November, 1914, the left hand only being treated at first. By January the growth was much reduced, particularly on the back of the hand and wrist, and the end of February the wrist joint could be moved quite freely.

Leukoplakia.

This condition is recognized as one of the most important pre-cancerous lesions. As such, its early treatment is advisable, and if in the early stages, when the pathological condition has not become of much depth, Radium applicators afford a satisfactory method of treatment. Sufficient exposure should be given to produce an exfoliation of the affected skin or mucous membrane.

If the condition has progressed to such an extent that fissuring and definite ulceration are present, it is probably wiser to advise local excision, particularly if it is the mucous membrane of the buccal cavity that is involved.

Rodent Ulcer.

The treatment of rodent ulcer is, perhaps, the greatest field for the use of Radium in Dermatological Practice. Observers from the earliest days of the use of Radium have agreed on this. In the ten-year period from 1910 to 1920, the writer has had the privilege of observing 212 cases of rodent ulcer treated by Radium. Of this number, 179 or 84.43 per cent. are regarded as clinically cured, many having been quite free from disease since their treatment received over ten years ago.

In the treatment of the rodent ulcer, the Beta rays are employed to produce a destructive action and necrosis of the tissues, with subsequent healing under a crust in about six weeks. The cosmetic result is usually excellent, it being often quite impossible to detect the site of the former ulcer. Cases of bone and cartilage involvement do not respond so favorably.

The accompanying cuts (figures 3, 4, 5, and 6) illustrate the results which may confidently be expected in treating cutaneous epitheliomata. Fig. 3 shows a typical rodent ulcer in a patient 64 years of age, seen in June, 1916. For ten years there had been a small lesion on the forehead, but sudden rapid growth took place, resulting in an ulcer two and a half by one and a half inches in extent, with the typical rolled edge of the rodent ulcer. Three months later the second photograph (Fig. 4) was obtained. Complete healing had occurred. There was an absence of thickening, and the cosmetic result was excellent.

Fig 3

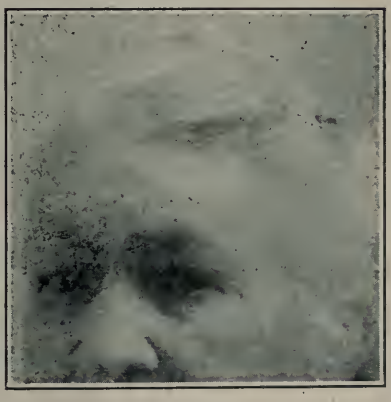

Fig 4

Fig. 5 represents a fungating epithelioma, involving both eyelids and tissues about the outer canthus. A lesion had been present for 14 years, slowly increasing. The second photograph (Fig. 6) shows the result obtained.

In Squamous-celled Carcinoma, the tendency to early metastasis must be remembered, and in addition to the treatment of the lesion itself, the neighboring lymphatics should receive deep raying. In these cases it is frequently advisable to combine surgical measures, such as excision, intensive raying of the parts being carried out subsequently. Where the clinical condition permits it, the cross-fire Gamma Radiation, obtained by the placing of properly screened applicators on opposite sides of the tumor mass, or by burying of needles in the growth, and thus obtaining intensive exposure, is to be employed.

Sarcoma of the skin may be removed locally by Radium, but here again the probability of early metastases must be remembered.

From an experience with Radium of twelve years, in connection with the Radiumtherapy work of Dr. W. H. B. Aikins, one may confidently say that it is undoubtedly the most useful single agent at the Dermatologist's disposal. The variety of conditions in which it can be employed with benefit is many. In a large number of cases it is the only therapeutic agent which offers any prospect of permanent clinical cure.

29 Roxborough St., West,
Toronto.

Fig 5

Fig 6

The Treatment of Goitre with Radium

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In studying any disease, one must know its natural history, if such a term may be used, in order to form a fair conclusion as to the value of any method of treatment. This is particularly true of exophthalmic goitre, an affection which has a period of increasing severity followed by a decreasing

wave, and perhaps a quiescent period of weeks. Then there is another attack, more severe, which reaches a climax and again recedes. This may be repeated many times with many variations, till the patient is completely exhausted. It is quite evident that almost any method of treatment applied during the "down wave" will be misinterpreted, unless the course of the disease is understood.

To appreciate the value of any therapeutic measure, therefore, there must be certain tests. In the first place those pathological manifestations which threaten life—the tachycardia, and the increased metabolism, must be ameliorated within a few weeks and disappear entirely and permanently in a few months at most. The pulse and blood pressure will revert to normal, the staring eyes assume their usual appearance, and the patient regain her nervous balance and physical strength. When this has taken place, we may safely say that the patient is clinically cured.

The treatment of goitre by radium has now been used for a sufficient time to form a fair judgment of its end results. It is twelve years since Dawson Turner first applied radium to a patient with Graves' Disease, with benefits so marked that his example has been followed by many observers both in Europe and America, and the efficacy of this therapeutic agent fully recognized.

The functions of the thyroid may be likened to the carburettor of a gasoline engine. If the opening is large and allows too much gasoline to enter the ignition chamber, the motor is wasteful. The proper thing to do is to put on a smaller carburettor. And so with the thyroid. When too much of the active hormone (thyrotoxin) enters the circulation, metabolism is carried on at a wasteful rate. The only way to stop it is to lessen the output, as in the carburettor, and this is done either by surgery or by radiotherapy. The latter causes destruction of the blood vessels and cells, which are replaced by connective tissue.

In this gland, as in every other gland of the economy, the amount of parenchyma is much beyond the needs of the body. An adult can maintain good health with about 1-6 of the gland substance.

There are four forms of goitre which the radiologist is called upon to treat: (a) Simple goitre, (b) the goitre of adolescence, (c) toxic adenoma, and (d) true exophthalmic goitre.

In simple goitre, radium is of little use, exerting no appreciable influence on the enlarged gland. In the second type,

however, the enlarged thyroid of growing girls, radium is of the greatest assistance. It is true that many of these goitres disappear spontaneously, particularly if the patient takes iodine in some form, but there are others that are still large when the girl leaves her "teens." For these especially radium is most beneficial, often changing a nervous, vacillating and unstable girl into a calm and useful woman. After seeing many of these patients treated successfully, the conviction is forced upon one that these persons were suffering from a slight degree of hyperthyroidism. Furthermore, with the present fashion of low-necked dresses, the cosmetic effect has to be taken into consideration. Very often radium will bring about a marked decrease in the size of the tumor.

Miss B., *aet.* 15, was first seen at the Radium Institute, February, 1919. Her neck had been increasing in size for four months. Pulse 100. Systolic blood pressure: 140. mm. Had been easily irritated previously. She received a course of radium treatment, spread over several months. By August the thyroid enlargement was much smaller and the pulse rate reduced to 72. She was seen again in the following spring, in perfect health, with a normal pulse rate and blood pressure.

Miss S., *aet.* 19, was first seen in April, 1919. The thyroid tumor was first observed eight months previously. Pulse 120; marked tremor; blood pressure: 140-100. After a course of radium for six weeks the pulse dropped to 90, her weight increased and the thyroid enlargement became less marked. Three years later she reported that she was enjoying fair health.

But it is in the third group, the toxic adenomas, that the most brilliant results are obtained. Here the symptoms are ameliorated, sometimes after the first application, the adenoma slowly decreases in size, and the patient is nearly always restored again to normal health. This has been recorded by so many different observers that the radiologist has now no hesitation in recommending this treatment in every case where the diagnosis can be made.

Mrs. S., *aet.* 52, was seen in March, 1920, complaining of loss of weight (26 pounds in four months), tachycardia, and "nervousness." Her eyes were staring, and there was a marked tremor. For many years she had had a small goitre. The diagnosis was toxic adenoma. After treatment with radium she began to improve. In six months the pulse had dropped to 90, she had lost the staring look, the thyroid tumor was less, and she was nearly back to her normal weight. This im-

provement has continued to the present. The usual exacerbations which one would expect in the course of the disease have been marked by their absence.

In the group which comes under the heading of Graves' Disease, the greatest care is necessary in selecting the proper kind of case. The results of treatment by surgery are far from satisfactory. Even when a large portion of the gland has been removed, it is not uncommon to find that the patient still presents some of the typical symptoms. The basal metabolism may become reduced but the general irritability still persists, so that clinicians are making a shrewd guess that in exophthalmic goitre there is more pathology to be considered than is found in the thyroid gland. But in looking over the hundreds of reported cases, one can say that the great majority are markedly benefited by radium, many of them so entirely relieved of their symptoms as to be classed under "clinically cured."

Miss C., *aet.* 54, examined in March, 1920, showed typical symptoms of exophthalmic goitre, with loss of weight of 32 pounds. The treatment extended over two years, but by that time she had recovered her weight, and returned to normal in every way. She has since resumed her duties, which she says she performs as well as ever.

Radium is often useful in those patients whose condition is too bad to allow even the simplest surgical procedures. While they are kept absolutely quiet in bed a plaque can be applied to the goitre, with sometimes excellent results. J. M., *aet.* 50, is a good example of this. He had been treated for exophthalmic goitre for two years without checking the progress of the disease. He was considered too bad a risk for surgery, and was so emaciated that he would serve as the subject of the illustrations seen in the text-books, the living skeleton with the thick neck and "pop eyes." This was the condition in July, 1921. In the following March he was back to normal weight, had regained his usual facial expression, and considered that he was as fit as ever.

In the cases cited, no mention has been made of the basal metabolism rate, because we have been using this for only the last eighteen months. Most of the patients treated since then show a gradual lessening of the metabolic rate, following the application of radium.

Surgical treatment has been most commonly employed after the patient has been in the hands of the internist for some time, and no improvement has been noted. The opera-

tive risk is considerable, for the shock is great. In the hands of surgeons who operate frequently for this condition the mortality is perhaps a minimum, but in the average hospital it runs from 5 to 10 per cent. The death rate is even much higher than this in those patients sent into hospital at night and operated on next morning. The scar after the operation has also to be considered, together with the failure to relieve symptoms in certain cases. On the other hand, surgery is an absolute essential in those conditions where the gland is exerting pressure of a dangerous kind, because the action of radium is too slow.

When it is resolved to employ surgical methods for the relief of one of these conditions, radium can be first employed, particularly in those severe cases of exophthalmic goitre where the risk is very bad. When the symptoms are partly relieved, some four to six weeks later, the gland may be removed with much greater safety. Some surgeons report that the adhesions caused by radium and X-rays make the operation more difficult. On the other hand, some prefer to operate under such conditions, since the danger of hæmorrhage is much less.

In the method of treatment, we have found most satisfaction from flat applicators. Radium, however, must be applied carefully, for it is a powerful agent, working not only locally, but upon the whole body, as shown by the changes in the blood, both in red and white cells and in the constitutents of the serum, such as the cholesterol. The radiologist who treats every case of enlarged thyroid with radium without careful study is just as injudicious as the surgeon who removes every goitre that presents itself. The total amount of radium given varies with each case, but experience is all pointing to a minimum dose over a considerable time, rather than to a heavy dose for a short time.

The first change which is noticed in the patient is the decreased pulse rate, followed by a drop in the blood pressure. The change in the size of the goitre comes a good deal later as does also the lowering of the basal metabolism. Lastly the eyes become less staring, the nervous symptoms disappear and the patient can take up her work where she left off.

An Interesting Case of Poisoning by Illuminating Gas*

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The following case of carbon monoxide poisoning is of sufficient interest, we believe, to warrant its publication. A study of the literature does not reveal any cases where prolonged unconsciousness has been definitely recorded and this case exceeds any in our personal experience. Elsner states that "coma may continue during prolonged periods," and Edsall [1] says: "coma may last many days." The writer observed a case wherein coma lasted seven days with recovery.

In the case under discussion, twelve and a half days elapsed between the time that gas began to escape in the house and the death of the patient. No one knows just when the patient was overcome, but we do know that it must have been over twelve full days.

Report of Case.

The patient, a widow, aged 35, retired to her room on the night of April 27th, 1922. That evening a gas bracket had been changed in the next room and gas escaped unnoticed. Next morning, the widow did not respond when called and was found unconscious on the floor.

On admission to hospital, she was deeply cyanosed, her breathing being slow and shallow, and she was pulseless. Oxygen inhalations with artificial respiration rapidly restored her pulse and respirations. During her twelve days in the hospital she never regained consciousness, although she would mutter frequently and could swallow, as a rule, when liquids were placed in her mouth. This nourishment was supplemented by 5% glucose Murphy drip by bowel. Her pulse varied between 80 and 100 and she had an intermittent fever from the first day, running up to 102 and 103F.

Owing to complete lack of identity, transfusion could not be arranged before the fifth day. She was then given 350 cc. of whole blood—Unger technique being used. Her eye grounds were negative; her urine negative except for a trace of coagulable protein, and her blood count was 4,600,000 and 9,000; reflexes normal. No further neurological changes appeared until the eleventh day, when an internal strabismus of

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the right eye was observed. On the morning of May 10th, she suddenly became cyanosed and rigid, respiration failed and she died.

This being a medical examiner's case, an autopsy was performed by Dr. W. L. Robinson, of the Department of Pathology, University of Toronto, and he has kindly furnished us with the following (abridged) report: "The brain shows a large number of irregularly-shaped areas of softening scattered through the medullary portion. These involve the left parietal, occipital and temporal lobes and the left caudate nucleus. The right cerebral hemisphere shows an area of degeneration about 1" in diameter and extending in the medullary portion of the brain substance just above the lateral ventricle. On this side the basal ganglia are normal. A few small hemorrhages are present. There is no microscopic evidence of vascular sclerosis in the brain. The kidneys show some arteriosclerosis."

Besides being of interest with respect to its prolonged course, this case illustrates in an extreme degree the brain degeneration so typical of carbon monoxide poisoning. This was originally described by Poetchen. W. G. McCallum [2] states, "It is common to find at autopsy symmetrical areas of softening with minute hemorrhages in the corpora striata and lenticular nuclei of the brain." These lesions might explain the mental aberrations, the amnesia, the lack of concentration, the inco-ordination and the headaches so frequent in the more serious cases which recover.

The Question of Toxicity

Considerable doubt still exists as to how illuminating gas poisons. Carbon monoxide comprises about 5-10% of gas made from coal and is the chief toxic substance. Water gas contains 30% (Da Costa). Other ingredients than the CO may be harmful. The gas supplied in Toronto analyzes 10-15% CO, averaging about 25% water gas.

The question is: Is CO toxic? Yandell Henderson in his report to the U.S. Bureau of Mines states: "CO is physiologically harmless except in its affinity for hæmoglobin. Toxic effects are wholly due to the inability of the blood combined with CO to carry oxygen to the tissues. The continuance of coma or after effects of CO are not due to retention of gas but to the results of injury to the tissue due to the insufficiency of oxygen while the gas was being inhaled"(Lanza).

This view is supported by many observers, notably, Luciana,[3] Starling and Mellor. Nicloux[4] records an instance in which seventy-five minutes after the poisoning and after 650 litres of oxygen had been administered, the blood still contained 0.08% CO, showing that 41.3% of the hæmoglobin was saturated. The patient lived, proving that the toxicity must have been light. In accordance with the nontoxic theory, McCombs examined many men subjected to CO gas for years, some for twenty years, and they were the strongest and healthiest men to be found. A concentration of 1:2000 is considered fairly safe by some (Haldane); fatal by others (Albaugh). Owing to its greater affinity for hæmoglobin than oxygen (230-300 times), there is probably a cumulative action which soon excludes the oxygen. This would explain why such a weak percentage could kill without being directly toxic.

On the other hand, people who have been poisoned are often immediately affected by the most minute quantities, so minute and with such transitory exposure as not to interfere at all with their oxygen supply. A well written description of the symptoms of chronic poisoning is given by Luden,[5] of the Mayo Clinic, who describes her personal experience. For nine weeks her household was ill, with absolutely no "furnace smell" nor gas odors noticeable and the presence of CO was only detected by the Katyama test. She reviews the literature in the light of her own experience to show that chronic poisoning may be made manifest by thyroid stimulation and adrenal, pituitary and parathyroid insufficiency. Animals whose blood contains no hæmoglobin, are said to be poisoned by CO as are also plants. Stewart[6] believes that there is a specific action on the parenchymatous elements of the nervous system as well as a diminution of the oxygen supply. Haldane states that should CO be present in the air in large quantities, it may cause death with convulsions in so few seconds that the blood in certain parts of the body may contain very little carboxyhæmoglobin (Allbutt). This would indicate more than oxygen insufficiency. Yet convulsions have been observed in the Stokes-Adams syndrome when the ventricular beat was delayed for twenty seconds or more, causing anæmia of the brain only.

The controversy is as yet unsettled. Could lack of oxygen for a few hours cause such brain changes as were found in the case we report? The literature on this point is meagre. MacLeod[7] finds that while the oxygen consumption of the brain is small, the higher cerebral centres are extremely sensitive to deprivation of oxygen. Mountain sickness comes on

as soon as the body fails to preserve the oxygen pressure in the alveoli.

All observers agree that the gas is gone from the blood after three or four hours. Henderson and Haggard find that 6-10% carbon dioxide with the oxygen materially hastens its expulsion. The blood of dogs saturated to 60% with CO was cleared in 180 minutes by pure air, 80 minutes by oxygen and in 22 minutes by oxygen and carbon dioxide. The action is on the respiratory centre. With this rapid elimination in view and following his theory that the damage is done before the patient is found, Henderson deprecates transfusion and venesection. On the other hand, Unger,[8] Lindeman[9] and McCombs[10] urge transfusion as being beneficial. In the case here cited, it was ineffectual, but the writer has seen good results apparently following therefrom. Quite recently de Harven,[11] of Brussels, reported favorably on transfusion.

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The Origin of Syphilis, According to Fracastoro

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Girolamo Francastoro, a very learned physician of Verona (and equally learned as a mathematician, astronomer, Latinist and philosopher), was driven from that city to his country place at Cafi, some fifteen miles away, by the plague in 1521. There he employed his enforced leisure in writing a poem in Latin hexameter, published at Verona, 1530, in which the word "syphilis" was used for the first time—"Syphilidis sive Morbi Gallici, libri tres." Some years later he published a prose Latin work, also in three books, "De Contagionibus, et Contagiosis Morbis et eorum Curatione," in several chapters of which syphilis was discussed more fully than "poetry would permit," as he puts it.

The causes and origin of the disease were then a much combated question; and it may be of interest to give the views of the inventor of the name.

He states that the Morbus Gallicus made its appearance in Italy at the time of the occupation of Naples by the Gallici (French) under Charles VIII; "about ten years before 1500" (in fact 1494-5)—and that it received its name from that people; that the French in turn called it Morbus Italicus, the Spaniards, Patursa, the Germans, Morbus Mevius or Gallicus. [1]

He does not admit the identity of the disease with Elephantiasis (Elephantia, Elephas) or with Lichen or the disease for which Avicenna prescribed "thus," with oil and vinegar, as contended by some physicians of his time. While he says that it was as native and as common in the recently discovered New World as scabies in Italy, he denies that it could have been caused by contagion from that place. Admitting that he can find no trace of it in the Old World at an earlier time, he contends that it must have existed there although all trace of it is lost; and he ventures the prophecy that it would soon disappear leaving no trace behind; only, however, to reappear in after ages, when a similar unusual combination

[1] The English generally called it Morbus Gallicus or French Pox, the French, Morbus Italicus or Mal de Naples: Iwan Block's well-known work "Der Ursprung der Syphilis" (Jena, 1901) gives a list perhaps not quite exhaustive of the names given to syphilis, 18 pages long.

of circumstances should recur. He gives various reasons for the belief in its prevalence in Europe in former ages—none at all very convincing. One of these is so singular and interesting that, although I have already made use of it more than once, I give it here again and in his own words (translated). He says:—"A friend of mine, a barber,[2] had a little and rather old book of recipes (experimentorum), among which was one entitled, 'For crass scabies accompanied by pain in the joints'; when the disease first appeared, he thought that it indicated crass scabies; and remembering the medicament, he consulted some physicians as to whether he should use it in this new contagion. The physicians examined the medicament and strictly forbade its use, as it was made of mercury and sulphur. He would have been fortunate if he had not consulted these doctors for he would have become wealthy—but he obeyed, not venturing to use his medicament. Later on, having tried it and found it highly effective, he was angry that others had got the money which he should have made."[3]

That the disease came from the New World, prevalent as it was there, Fracastoro did not believe; it could not in so short a time have overrun Spain, France, Italy, Germany, nearly all of Russia and Poland, and parts of Asia and Africa.

He states as a fact that astrologers prophesied the advent of a new and serious disease some years before syphilis struck Europe, from their knowledge of the motions of the stars. His theory, as to the veridity of which he has no doubt, is that it arose from the conjunction of the three "Superior" Planets—Saturn, Jupiter and Mars—superior, because they were supposed in the geocentric Ptolomaic astronomy of the day to be above the sun, the other two, Mercury and Venus, being below the sun.[4]

He denies any direct deleterious action—action *per se*—of the planets; the mischief was caused, *per accidens*. By the conjunction of these planets in one Sign, a tremendous evapora-

[2] Barbers were then the surgeons: it was beneath the dignity of a physician to practise surgery—*Nunc, quatum mutatus!*

[3] I am reminded of the story of Berenger de Carpi, who is said to have been the first user of mercury in syphilis (in 1497.) He became famous and made as much as 6,000 pistoles in a year—he charged exorbitant fees, and his patients had to pay him what he asked. His motto was *Accipe dum dolet*—Get it when he's sick.

[4] Guy de Chauliac, the celebrated surgical author of the 14th Century, attributed the Black Death to the conjunction of Saturn, Jupiter and Mars in the Sign Aquarius, March 24, 1345. Fracastoro expresses the same view in his poem *Syphilidis sive Morbi Gallici. Lib. I, vv.* 185-195, a very interesting poetical description of its course in Asia, Africa and Europe.

tion was set up; the vapors mingling with the air were agitated in many directions and ultimately caused a "sordid putrefaction," i.e., a putrefaction extending into the mass and not simply superficial. According to his theory of contagions, every contagion contained a putrefaction; but not all putrefactions caused a contagion. Putrefaction consisted in the emission of very minute, insensible particles; if these were dry, they could not coalesce; but if mucous and hot, they agglutinated togther to form "seminaria," seed-beds, nurseries, of infection The putrefaction induced by the planet-raised vapors was such that "seminaria" were formed; these, invading man, found their analogue and field of action in crass, sordid and mucous phlegm, "whence was born this disease, which has affected so many mortals, so many regions, partly indeed, by the air itself sending in (immittente) the 'seminaria,' and partly by contagion from one to another."

"Phlegm" was, of course, one of the four "humors" in the human body upon the due proportion (crasis or temperamentum) of which so much depended—Sanguis (Blood), Phlegma or Pituita (Phlegm, Rheum), Chole or Cholera (Yellow Bile) and Melancholia (Black Bile); as a "humor," it has disappeared along with Melancholia, leaving but words behind.

The infection being now fixed in the human phlegm, it creeps slowly through the mass of the blood, finding food for itself in the phlegm—the part which is less crass and less sluggish (segnis) is driven to the skin and causes pustules; the part which is more crass and less capable of being expelled to the skin, takes up its position in the arms and nerves and causes severe pains; and the most crass is coagulated around certain parts and is hardened, "concreted," into gummosities.

Fracastoro says that when the disease first appeared very many were infected without contagion from another but from the air itself—that he has seen many such instances—but adds that for some twenty years the disease has been changing, and that now it is contracted only by contagion—generally coition, but infants sometimes contract it by sucking an infected mother or nurse. The contagion, moreover, is not so active or so easily taken as formerly.

For some twenty years before he wrote, the pustules had been becoming fewer and drier, the gummosities more numerous, and the pains when they did occur, more severe.

For about six years, another change had been in progress, the pustules were seen in very few, the pains in almost none and when they did occur were much less severe, but the gum-

mosities were very many—"and what seems strange to everybody, the fall of the hair of the head and other parts makes men almost ridiculous, some coming into view without beard, others without eyebrows, others with a shining poll, which misfortunes were formerly believed to be caused by medicaments, especially mercury, but later on everybody knew it to proceed from the disease itself having changed—and, what is worse, now many are found with loosened teeth, in some, the teeth have fallen out."

It may be noted that Fracastoro places syphilis (in its then existing state) in the first class of contagions, viz., those infecting by touch alone; he denies that it can infect by "fomes"[5], i.e., by leaving behind "seminaria" of infection on clothes, wood, etc., which themselves not infected nevertheless furnish a nidus for preserving and transmitting infection.

[5] "Fomes" is literally "tinder", "touch wood": it is the word used by Fracastoro "Syphilidis, etc.", Lib. III, v. 163, for the fuse for touching off the fire-lock. In his prose work, the clothes, wood, etc., furnishing a nidus for "seminaria contagionis," are called "fomes."

There was a third kind of contagion according to his theory that is, contagions acting not only by actual contact and by "fomes" but also at a distance like the glance of the lethal beast, Catablepha, which can kill a man at a thousand paces by looking at him. Certain lippitudes are of this kind as are phthisis contagiosa and pestilential fevers like the English sweating-sickness, the Black Death, etc. These probably act by a *species spiritualis*.

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Editorial

Reorganization of the Canadian Medical Association

If the Canadian Medical Association is to fulfil the purposes which justify its existence the question of reorganization should be seriously considered in order that it may assume its proper relationship to the provincial associations and become national in representation and influence as well as in name. It has now reached a respectable maturity and its roll of presiding officers includes many distinguished names, among which those of Sir Charles Tupper, Sir William Osler, Sir Thomas Roddick and others, show that it has not lacked the guidance of the most distinguished men in the medical profession.

The precariousness of its existence during its early years is shown by the fact that during the seventies the executive body of the organization actually brought about a basis of union with the American Medical Association, which, however, was not acceptable to the membership and was subsequently discontinued.

There are now over 8,000 duly qualified medical practitioners in Canada, yet there has never been an occasion on which ten per cent. of them have been brought together at a meeting of the Canadian Medical Association and usually less than half this number has been in attendance. In respect of attendance, enthusiasm and influence it has fallen behind that of some of the provincial associations. The latter bodies in recent years have taken on renewed life, have organized and linked up their various town, district or county societies as constituent units and this organic union has increased the solidarity and greatly extended the corporate influence of the profession in the provinces.

The annual meetings of the Canadian Medical Association are composed largely of members drawn from the area within a short distance from the place of meeting, with only a sprinkling of others from more distant parts of the Dominion, and consequently they lack in representation, numbers and effectiveness to make them successful from a national point of view. When the annual meeting of the Canadian Medical Association replaces that of the medical association of the province in which it is held it is a detriment rather than a service to the provincial organization.

That the programmes usually lack in a proper representation of leading Canadian clinicians, practitioners and scientific men, is too evident to require emphasis. The failure to appreciate the worth and interests of Canadian doctors, is not only unfair to the individual, but deplorable from the view point of national interest and sentiment. No association is worthy of being called national that does not fairly maintain the prestige, dignity, rights and interests of its own members as representatives of one of the most important influences in the national life.

One of the main reasons, no doubt, for the failure of the association to measure up to what is expected of it and to keep pace with the development of a broad and truly national sentiment, is our comparatively sparse population and the long distances to be travelled in order to attend the meetings. Attendance involves a considerable expense and does not afford the restful holiday which the doctor and his family require. The resulting irregular or non-attendance at the meetings, and their consequent lack of a representative character, interferes with a continuity of policy and prevents the consideration of problems which affect the medical profession of the whole Dominion and indirectly the population in general.

More frequent changes in the executive body of the association we believe are necessary in order to familiarize and interest a larger number of the profession in its work.

The suggestion to make the Canadian Medical Association a congress of the provincial associations to be held in one of the large centres—Vancouver, Calgary, Edmonton, Regina, Winnipeg, Toronto, Ottawa, Hamilton, Montreal, Quebec, St. John, or Halifax—every four years affords the basic principle which would ensure the national association its proper place in the organization of the profession, would make the meetings truly representative and provide the large attendance necessary for the association to fulfil its functions and exercise the influence which it should. Now that Quebec has organized a provincial association, a difficulty formerly in the way has been removed and nothing could be more fitting than that a broader scheme of a national organization should be initiated at the Montreal meeting next year.

The President-elect, Dr. Charles F. Martin, has the confidence of the profession and the energy, capacity and experience, which qualify him in a high degree to lead in the forward movement and we will look with confidence to him to prove equal to the responsibilities and opportunities of a critical situation in the life of the association.

A reorganization such as we have suggested would pave the way for some form of affiliation with the British Medical Association and thus provide another link in the chain which unites the various nations constituting the Empire.

The Charles Mickle Fellowship for 1922-23, University of Toronto

The Charles Mickle Fellowship, bequeathed by the late Dr. W. J. Mickle, is the annual income from an endowment of $25,000. It is awarded annually by the Council of the Faculty of Medicine to a member of the medical profession anywhere in the world, who has, in their estimation, done most during the preceding ten years to advance sound knowledge of a practical kind in medical art or science. It was awarded last year for the first time, the recipient being Prof. I. Pawlow, of the University of Petrograd, in recognition of work he had done in Physiology with particular reference to the digestive tract.

It has been awarded this year to Dr. Harvey Cushing, of Harvard University. His acceptance of the well-deserved distinction is upon the condition, most generously imposed by him-

self, to the great gratification of all well-disposed Canadians, that the Council of the Faculty select and send to Dr. Cushing a suitable recent graduate of the Faculty to work with him in Harvard, to whom Dr. Cushing proposes to give the $1,000 which goes with the Fellowship.

Dr. Cushing, who was born in Cleveland, Ohio, in 1869, has been professor of Surgery in Harvard University since 1911. He is an Honorary Fellow of the Royal College of Surgeons of England and of Ireland, and a member of many medical organizations in the United States, as well as the author of a number of medical books and papers. He has made a special study of brain surgery and has achieved an eminent place in this branch of work. He is a graduate of Yale and Harvard Universities, and was from 1902 to 1911 Associate Professor of Surgery in Johns Hopkins University. Dr. Cushing was Director of the U.S.A. Base Hospital, Number 5, attached to the British Expeditionary Force in France from May, 1917, to May, 1919.

The *Entente Cordiale* thus established between the medical services of the Empire and those of the U.S.A. in the Great War, and between this country at large and our neighbours to the south, is being more and more firmly cemented between our own Universities and the great American institutions of the same kind. If we but set ourselves to avoid mere imitation, and seek to bring to other centres than our own something of our own ideals and standards, both retaining our own self-respect and maintaining an attitude of interest and sympathy with our fellow-workers both in the U.S.A. and in other lands, we shall be making a definite contribution to the world's welfare, and appreciably helping in the main international duty of Canada at this moment of history. This we take to be an intelligent and definite purpose to be patiently and wholeheartedly helpers in inducing a better mutual understanding in all matters between the great American community and the Great Empire which we all love.

Medical Societies and their Meetings

The time seems to have arrived for a little stock-taking, for a conjoint view of the activities of the profession as they occur in connexion with our various Associations and Societies, the objects of which are scientific, professional and social. We do not now bring into the picture the legal machinery set up by parliamentary enactment or statute in the various Colleges of Physicians and Surgeons of the Provinces and Dominion.

The position of the reputable, licensed practitioner, say in Toronto, has come to be as follows: he may enjoy membership in any of the three Associations, the local, the Provincial and the Canadian, only by entering the charmed circle through the portal of his local organization, the Academy of Medicine, at a minimum fee of fifteen dollars each year.

Being in good standing locally, he is acceptable to the Provincial Association, should he apply for membership, the fee being ten dollars annually. The meeting is held each year, and these have always been occasions of good fellowship, well worth attending for that feature alone. The efforts, too, of successive presidents and committees to maintain a high standard of professional and scientific performance in their programmes have been praiseworthy and successful.

Should the practitioner be so inclined, being in good standing in his Provincial Association, he may join also the Canadian Medical Association, again at a fee of ten dollars per annum, upon which he receives the Journal of the Canadian Medical Association, which is at present also the official organ of the Ontario Medical Association. His outlay in fees thus far, including the subscription to the Journal, totals thirty-five dollars per annum. The additional cost, should he attend one or both of the annual meetings mentioned, is partly a matter of individual taste. When one counts the loss due to absence from practice for a week or longer, in addition to outlay upon travel, hotel bills, etc., for annual meetings held at various points, even in Ontario, and much more for those of the Canadian Association, the wonder is rather that the meetings have been so well attended and so successful. The profession carries the burden in a way that shows a fine corporate spirit and sense of duty.

Of the three organizations mentioned, that one which makes the most direct demand upon this spirit of loyalty is the local one. It is most directly useful, and meets from five or six to eight or ten times in the year. It makes least demand upon the time of the practitioner, and serves most as a cement for local team-work and good-will, in addition to affording the members the use of a large consulting library and reading-room, well-stocked with current medical literature. Of the three societies under consideration, it should be the one selected for the most vigorous support by all of us.

For similar reasons it seems fair to hold the view that the man who cannot attend both the Provincial and the Canadian meetings should favor the Provincial meeting, not every year necessarily, but say twice out of three years. This is

not that he "loves Caesar less, but Rome more," for decent pride in one's native country demands adequate maintenance of the Canadian Medical Association.

The analogy of the International Congress meeting triennially in the various capitals of Europe occurs to one. It is admittedly in some respects a faulty analogy, but with our sparse population, enormous distances, limited incomes and high costs of living and of travel, it is submitted that something should be done to reduce the load outlined above. Less frequent holding of meetings is the remedy naturally first to be thought of, and the largest Association, territorially speaking, should, it is thought, be the one to meet least often, say once in three years, and at three almost constant points, East, Central and West. The Province in which the Canadian Association might be meeting should for that year hold no meeting of its own, other than a meeting of its council for purely business purposes, if thought necessary. The profession will be found ready to pay a reasonable annual fee for maintenance of each Association for the years in which it does not meet. But the present situation seems urgently to need remedy.

The Cancer Campaign

We have nothing but praise for the good work which is being done in the cancer campaign by the American Society for the Control of Cancer. This society has kindly placed at the disposal of the Ontario Government a large portion of its literature on the subject. Dr. McCullough, our C.O.H., has been prompt in taking advantage of this kind offer, and has issued two handbooks published originally by the American Society. One is intended for the medical profession, and its design is to give briefly and in simple language all important facts about cancer and its varied manifestations. It is really an admirable booklet and gives a vast amount of very useful information to physicians.

Another little handbook, very carefully compiled by a committee of the American Society, is designed to present in simple language to the lay reader the essential facts about cancer in general. It outlines the commonest predisposing conditions and symptoms.

We sincerely hope that physicians in general, and especially all health officers, will assist the Ontario Board of Health by giving as much publicity as possible to the facts mentioned in these little booklets.

There appears to be a general impression that cancer is "heavily on the increase in all civilized countries." The J.A.M.A., in commenting on this subject in its issue of June 10, expresses certain doubts regarding the actual increase of cancer. We quite concur in such doubts and the reasons given for them. We find in recent literature from various parts of the world that there is a general consensus of opinion that reports of death from cancer are more accurate than they were some years ago. This is probably largely due to an increased skill in diagnosis. We hold the opinion that cancer at the present time is not increasing, but, on the other hand, is perceptibly decreasing. We should be sorry to think that all our efforts to conquer the worst enemy of the human race were entirely in vain. We have an idea that increased knowledge in the profession and a more nearly correct appreciation of the facts by the general public have accomplished much good.

In connection with this serious subject, a little bit of optimism is more profitable than huge slices of pessimism.

Automobile Camps

An interesting article regarding automobile camps recently appeared in *American Medicine*. Summer travelling in automobiles has assumed vast proportions, and, as many of the motor travellers do some "camping out," sanitary considerations have become very important. The February *Health Bulletin* of the State of Maine, estimates that there were about a million travellers in that state during the summer of 1921.

They appear to have paid more attention to the subject in California than in any other state or province we know of. They have, in that state, at present, more than 160 camps systematically maintained in cities, while there are more than 100 private camps available in rural districts.

Our sanitary authorities consider especially two aspects—one the danger of pollution of water supplies, the other the danger of flies, mosquitoes, etc., the latter resulting from what the campers leave behind them. We are glad to learn from the *Ontario Highways Bulletin* that tourists' camps have been established at Hamilton, Stratford, Windsor, Sarnia, Brantford, Aurora, Sharon, Bracebridge, Parry Sound, North Bay, Ottawa, Fort William and Collingwood. We are also told by the *Toronto Daily Mail* that rural Ontario is awakening to the possibilities and "waits only a real lead from a central organization of energy and power to back it with money and enterprise." There appears to be a general feeling in the province that we should do what we can to encourage tourists to visit our country.

News Items

Infantile Paralysis

About the middle of July, a few cases of infantile paralysis occurred in Hamilton. Dr. James Roberts, M.O.H., stated July 30th, that it had become epidemic and assumed serious proportions. While his department was endeavoring to prevent its spread, he asked for co-operation on the part of the citizens, and advised caution as to the advisability of allowing gatherings of children at public places, picnics, etc. The doctor at that time did not wish to do more than advise, having no desire to interfere with the pleasure season, although drastic measures might become necessary at any time. In the meantime, arrangements were made for an isolation hospital with accommodation for forty patients. The first death from the disease occurred in Hamilton, July 29th, when Joan Thompsette died at the General Hospital, aged one year and nine months.

Since the above was written several other deaths have been reported in Hamilton, as well as some in Brantford.

The Northumberland and Durham Medical Society

A very interesting meeting of this society was held at Bowmanville, July 19th, when about eighty were in attendance. The main subject discussed was "Diseases of the Thyroid Gland." Drs. H. B. Anderson and Roscoe Graham, both of Toronto, delivered addresses, one dealing with the medical, the other with the surgical aspect.

The late Dr. W. Chambers, of Calgary, was killed in a railway accident on the C.P.R. about two years ago. The widow sued for heavy damages, the C.P.R. being willing to settle for $40,000, acknowledging responsibility for the accident. The settlement was refused and the case went to trial. The judge assessed the damages to the widow at $65,000 and to the infant son $15,000. The appellate division, on appeal, reduced damages to the widow to $25,000, leaving the damages to the son unchanged. The matter was appealed to the Privy Council in London, who, on July 31st, of this year, allowed the appeal, increasing the damages from $25,000 to $42,000. The respondents will pay two-thirds of the costs.

Canadian Pediatric Society

A Canadian Society of Pediatrics was organized in Toronto in June. The following officers were elected:—President, Dr. A. D. Blackader, Montreal; Vice-President, Dr. Allen Brown, Toronto; Secretary, Dr. E. A. Morgan, Toronto; Executive Committee, Drs. H. P. Wright, Montreal, G. Campbell, Ottawa, and A. Canfield, Toronto.

Dr. (Col.) Walter McKeown, of Toronto, will be the medical member of the Federal Commission to inquire into the Soldiers' Pensions and other matters relating to Re-establishment. Dr. McKeown went overseas with the Toronto General Hospital and was for more than two years Chairman of the standing medical board at Folkestone, England, dealing with all pensions and discharges in connection with the Canadian Expeditionary Force. At the conclusion of the War he was gazetted a full Colonel of the British Army in recognition of his services.

Personals

Hon. Dr. Beland, Ottawa, Minister of Health, was married to Miss Van Laethem, July 20th.

Dr. Edmund E. King, of Toronto, left home about the middle of July to spend his vacation at his summer residence, Hastings.

Dr. J. G. Fitzgerald, after going to England in June, spent the greater part of July in London. He left that city for Scotland, July 21st.

Professor Irving Cameron, of Toronto, now in England, was attending the meeting of the British Medical Association when last heard from.

Dr. J. H. McConnell, of Toronto, has been made a member of the Corporation of Trinity College in the place of the late Dr. George A. Bingham.

Dr. James Hanley returned to Toronto from Germany, July 25th. He reports plenty of material for clinical purposes and good teaching in the hospitals with general poverty throughout the country.

Dr. George Porter, of Toronto, after reaching England, in the latter part of June spent some time in Oxford with his son, a student of Oxford University. Dr. Porter represented the Canadian Tuberculosis Association at the International Congress held in Brussels in July.

Dr. B. E. S. Wishart has returned to Canada after having taken extended courses in Boston, Edinburgh and London, spending altogether over two years at post-graduate work. He is now spending a holiday on the Georgian Bay and will shortly resume practice in Toronto.

Dr. John W. S. McCullough who, while in England, attended the meeting of the Royal Sanitary Institute in London, in the month of July, sailed from Liverpool for Toronto, Aug. 11th. He was also present at the banquet of the Royal Society of Medicine (the first since the War.) There were 350 present and Sir Blandford Sutton acted as Chairman. It appears that this great surgeon has had an extraordinary career, starting life as a chore boy in the dissecting room. He then commenced to climb the ladder and has now reached the top rung. Sir A. Mond, British Minister of Health, Lord Riddell, Sir James Barrie, Sir John Goodwin and many other distinguished men were also present.

Obituaries

J. J. Mackenzie, B.A., M.B.

We have to record with deep regret the death of one of the best-known educationalists of Canada, Dr. J. J. Mackenzie, Professor of Pathology in the University of Toronto.

Dr. Mackenzie was born in St. Thomas in 1865, graduated from the University of Toronto, B.A. in 1886 and M.B. in 1889. He then took post-graduate courses at Berlin and Leipzig. After his return to Canada he became a Fellow in Biology at the University of Toronto. For some years he acted as Bacteriologist for the Ontario Department of Health. He was appointed Professor of Pathology and Bacteriology in the University of Toronto in 1900, and retained that position up to the time of his last illness.

He served during the war with No. 4 Base Hospital (University of Toronto). While at work in Saloniki he was somewhat seriously ill, the cause of which was not early recog-

nized. We presume that even then he suffered from streptococcic septicæmia, wholly or partially due to pyorrhœa. He was an indefatigable worker and it was supposed by those who ought to know best that his laboratory duties, which were always faithfully performed, contributed largely to the serious results which ensued.

In the fall of 1921, his condition became serious and, unfortunately, endocarditis developed. Early in January he appeared to improve and strong hopes for his recovery were entertained. Early in the summer he went to his home in Muskoka, but serious symptoms soon appeared there, and, as a consequence, he was taken to the "Calydor," where he was cared for by Dr. Parfitt. We heard late in July that he was doing fairly well and was holding his own. Then came the report that he was sinking rapidly during July 31st. This, unfortunately, was correct, and death came early in the morning of August 1st.

Professor Mackenzie was recognized as an authority in Bacteriology and Pathology, but apart from his merits as a scientist he was very popular and much loved by those who knew him intimately.

Edmund J. A. Rogers, M.D.

Dr. Edmund Rogers, a Canadian, at one time well known in Cobourg and Peterborough, died in Denver, Colorado, July 3rd, aged 71. In his younger days he was threatened or supposed to have been threatened with tuberculosis, and for that reason decided to leave Canada and practise in Colorado. It is a great source of satisfaction to his many friends that the new climate agreed with him, and he was able to accomplish a lot of good work in his new home.

Hugh Grant Roberts, M.D.

Dr. H. G. Roberts, a well-known physician of Guelph, died at his home in that city, July 11th, aged 69. He graduated M.D. from Trinity University in 1885, and practised for a time in New Germany, Ontario. He removed to Guelph about 19 years ago, and in addition to general practice he acted as M.O.H. for Guelph township.

Alexander Hamilton, M.A., M.B.

Dr. Alexander Hamilton, of Toronto, died suddenly July 30th. While walking on Langley Avenue, he had what was supposed to be a fainting fit, and, with the assistance of friends, reached his residence, where he died in a few minutes. He was a man of superior attainments with rather radical views in his young days. He graduated B.A. 1868, M.A. 1869, M.B. 1870. After graduating, Dr. Hamilton practised in Millbrook until he went abroad. On his return he practised in Port Hope until 1894, when he removed to Toronto. He remained in Toronto during the rest of his life.

Mrs. Jabez H. Elliott

Mrs. Elliott, wife of Dr. Jabez Elliott, Toronto, died at Wellesley Hospital, July 27th. Some weeks before, at her summer home, Muskoka, she had a serious attack with severe abdominal pain. Shortly after she went to Toronto, and for a time was considerably improved. Having suffered a relapse with serious symptoms she was removed to Wellesley Hospital, July 26th, and died there on the following day.

Mrs. R. A. Pyne

Mrs. Minnie Isabel Pyne, wife of Hon. Dr. R. A. Pyne, formerly Minister of Education, died July 29th, at the family residence, 161 Indian Road, Toronto. Her illness was said to be due to heart trouble after a serious fall more than a year ago. Mrs. Pyne was born in Woodstock, daughter of the late Judge Macqueen.

W. C. C. Freeman, M.D.

Dr. W. C. Freeman, only son of the late Dr. Wm. Freeman, of Georgetown, died at Rock Springs, Wyoming, U.S., July 18th.

Melvin D. Crooker, M.D.

Dr. Crooker died at his home in Tillsonburg, July 22nd, aged 53. He had lived and practised in Tillsonburg for 49 years.

R. B. Bentley, M.D.

Dr. R. B. Bentley, aged 50, of Truro, N.S., was shot dead, July 24th, by Felix Cook, aged 38, who then shot himself. No explanations were given in the newspaper reports.

Book Reviews

Aids to Organotherapy. By Ivo Geikie Cobb, M.D., M.R.C.S., Neurologist, University of Peusiaus; Late Assistant to Out-Patient Physician, the Middlesex Hospital, etc. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1922.

The physician who is flooded with advertising matter from pharmaceutical firms bearing on the Internal Secretions will welcome this small volume of pocket size and 175 pages, which presents, in a very readable style, what is important to be known on this subject.

Endocrinology is very far as yet from being an exact science. With few exceptions the use of the various extracts is empirical and deductions are open to many fallacies. The study is fascinating and is one of which every practising physician should have some real knowledge. In this book the physiology of the Endocrine Glands is briefly discussed, more particularly the Thyroid Gland, of which our knowledge is more definite, and the various disordered states and clinical manifestations of the same described.

It should prove a very useful manual.

Essays on Surgical Subjects. By Sir Berkeley Moynihan, K.C.M.G., C.B., Leeds, England. Octavo of 253 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, $5.50 net. The J. F. Hartz Company, Limited, Toronto.

It was a happy thought that suggested the collecting and publishing of this series of Essays of Sir Berkeley Moynihan. They form a volume which any practitioner will delight to pick up for recreation reading. Some of the titles are: The Murphy Memorial Oration, The Ritual of a Surgical Operation, Acute Emergencies of Abdominal Disease, The Diagnosis

and Treatment of Chronic Gastric Ulcer, The Gifts of Surgery to Medicine. To anyone familiar with Moynihan's style it is hardly necessary to say that the matter is presented in a very clear, lucid form, which makes it a real pleasure to read.

The Writing of Medical Papers. By Maud H. Mellish, Editor of the Mayo Clinics Publications. 12mo of 157 pages. Philadelphia and London. W. B. Saunders Co. Cloth $1.50 net. Sole Canadian Agents, The J. F. Hartz Company, Limited, Toronto.

"Many men and women who unfortunately do not possess the art of writing and have not acquired its usable substitute, the craft of writing, have yet chosen medicine as a life-work, for success in which they should be able to write well for the medical profession." This sentence opens the introduction to a handbook on the "craft of writing." General rules of punctuation and grammar are concisely outlined, while the remarks on the proper choice of words are very helpful. Chapters on the writing of papers contain most useful suggestions. The book is clearly written and is of a most convenient size. In fact, we can perhaps afford it no greater praise than to state that in its arrangement and style it is a most excellent example of the rules of writing which it upholds.

Transactions of the American Pediatric Society. Thirty-third session, held at the New Ocean House, Swampscott, Mass., June 2, 3 and 4, 1921. Edited by Joseph Brennemann, M.D.

This volume embodies the forty-two papers read at the annual meeting of the society, many of them of great merit, and some of them classics. For thirty-four years this organization has been an excellent example of a medical society, publishing its transactions each year, and encouraging its members in every way to contribute to the advancement of science. Furthermore, most of the papers are models. The society is to be congratulated upon this volume.

Obstetrical Nursing. A text book on the nursing care of the expectant woman in labor, the young mother and her baby, by Carolyn Conant Van Blarcom, R.N., formerly Assistant Superintendent and Instructor of Obstetrical Nursing at St. John's Hospital, Baltimore; with 200 illustrations and 8 charts, New York, the Macmillan Company, 1922.

This book is well and clearly written, simple and chaste in style, easy and pleasant to read, uplifting and ennobling

in parts. Many of us think a good nurse is one of God's own—we don't mean the mathematical machine, but the woman with heart and soul endowed with knowledge and skill—ever sweet, kindly and considerate. One gathers from the book that such would be Miss Van Blarcom's ideal nurse, and her great desire is, evidently, to help the undergraduate to make good.

In going a little beyond the nurse's proper domain—which is in no sense objectionable, as there is no exact line of division between the work of the nurse and the physician—we doubt if it is ever advisable for a nurse to use rubber bags such as those of de Ribe, Voorhees, or a rubber bougie for inducing labor. If a woman has ante-partum hemorrhage the cause and nature of it matters little to the nurse but when it is alarming she should try to stop it if no physician is at hand. If this book contained Edgar's description of the tampon and its use, together with Figure 283 (4th Edition), it would be worth more than an account of rubber bags and their uses. As to other matters which properly come within the doctor's estate, we have no adverse criticism to offer, although we can see no urgent necessity for some portions.

And now a few remarks as to the merits of the book which really deserves a review for which we have not the space. The preface is good enough but too long; the introduction is fairly long but so good that we should dislike to see any portion deleted. The chapters on anatomy and physiology are satisfactory. When one comes to the "Expectant Mother" and reads the two chapters on "Pre-natal care" and "Mental Hygiene," he finds something wonderfully well-suited for the nurse in training.

The directions given regarding what may be considered the normal work of the obstetric nurse and also the midwife, in charge of a normal case, are excellent, and practically complete. The description of various complications, accidents and emergencies and the direction given for the treatment of them are we believe as nearly perfect as possible.

We believe this is the best book for both undergraduate and graduate nurses we have ever seen.

Correspondence

The Canadian Medical Association

To the Editors,
THE CANADIAN PRACTITIONER,
Toronto.

Gentlemen:

I have read with keen interest your remarks regarding the Canadian Medical Association in your August issue; and, with your permission, shall offer a few words upon the subject.

What you say about the attendance is correct. I have long known that the attendance is always largely drawn from the more immediate vicinity of the meeting. When the meeting is in Halifax, the Maritime Provinces contribute the chief portion of those present. When in the West, such as at Winnipeg, Calgary, or Vancouver, then the Western Provinces must supply the personnel of the gathering. When in an Ontario city, then the numbers mainly come from the same province. The only place in Quebec where the Association can meet with any hope of success is Montreal.

There are always a few enthusiastic teachers who will travel long distances to attend the meetings; but this is not true of the profession in general. The consequence is that the meetings of the Canadian Medical Association are to a very great extent a local association with a national name. But this is not all. It is a terrible waste of both time and money holding annual meetings of the Association, in view of the fact there are active provincial associations.

It should also be borne in mind that the year the Canadian Medical Association meets in any province, the provincial association is dormant for that year. This should be repeated as seldom as possible. Any really good papers that are read at the Canadian Medical Association could be read at some one of the provincial meetings, or sent direct to one of our journals. In this way they would reach the medical profession as directly as if read at the national meeting.

The writer is of the opinion that it would be a boon all round, were the Canadian Medical Association convened but once in four years. The real place for effective organization is in the provinces, and the national association should realize

this and act accordingly. The Canadian Practitioner has started a movement in the right direction, and it is to be hoped that success will crown its efforts.

Unis E. Pluribus.

To the Editor,

The Canadian Practitioner.

Toronto, Ontario.

Anyone attending the recent meeting of the C.M.A., at Winnipeg, could not help being forcibly impressed with the fact that those members who are agitating holding the Dominion organization's meetings every three or four years have a good argument.

In the first place, the practitioner who attends the meetings of his local medical society and his provincial organization has not the time nor the inclination to attend the annual Dominion association meeting, especially if it is held far away. This, of course, accounts for the small attendance at the C.M.A. annual meetings.

Another point we cannot overlook is the considerable expense involved in travelling such long distances, and the loss of time from work at home. The average member does not attend the C.M.A. meetings more than once in four years. For example, if he went to Halifax in 1921, he could not possibly afford to go to Winnipeg in 1922, whether he resides in the East or in the West.

A great many would make the attending of the C.M.A. meetings their vacation, if these meetings were held every three or four years in some large centre. The result would be that more papers would be available and it would make it unnecessary to have one man's name on the programme several times.

It would appear, therefore, that to make the C.M.A. as popular as it ought to be, the meetings should not be held annually.

As there has been considerable talk among the members, it should be quite worth while having this matter fully discussed.

Truly yours,

Observer.

University of Toronto, Medical Faculty

To the Editors of the Canadian Practitioner.

Gentlemen,

In the first place I wish to congratulate you on the very able editorials which have appeared from time to time on the subject of the Medical Faculty of the University of Toronto, and medical teaching in Toronto; and on your policy of giving a fair amount of space to correspondents. I am making bold to offer a few remarks on the caption chosen for this letter.

In the first place, I am not engaged in teaching, and so am voicing my views as one on the outside. I was one of those who felt that the plan of giving no pay to the assistant teachers was unjust; and that which is not just cannot endure. I also felt that the withholding of the title of associate professors from the chief assistants, or heads of services, was also a great mistake, and calculated to cause much discontent. These feelings proved correct.

We learn that the assistant surgical men of the Medical Faculty refused to have their pay withheld, and also insisted on retaining their titles. The assistant medical men, after both pay and titles had been withheld for two or three years, demanded the restoration of both. This has been conceded by the University Governors. We contend that in this way justice has been done.

We wish to congratulate the University Governors in the course they have adopted. It will go a long way to clear the air, and disarm harsh criticism. A university is never powerful enough to withstand an adverse feeling in the minds of the public; nor a disloyal or dissatisfied stand on the part of the teaching staff in any faculty.

The stand taken by the Canadian Practitioner was very timely, and, no doubt, had much weight in bringing about the changes just mentioned. Those who started the movement for discontinuing both pay and titles have no cause to feel proud of their efforts. They have met with inglorious defeat. Fair play has prevailed and autocracy has failed. It has become quite apparent that the opinion of University graduates is not yet prepared to accept a system of professorial or managerial oligarchy.

Yours truly,

Philos Dikes.

Abstracts

Contemporary Deterrents to the Process of Clinical Medicine. SYDNEY R. MILLER. *Science, June 2nd, 1922.*

Clinical medicine will always remain an art expressing itself by the practical application of all scientific experience toward the cure, alleviation or prevention of disease; in this pursuit it does and must enlist in its service all of the sciences. Many of the factors to which may be ascribed the brilliance of contemporary medicine in a scientific sense are, in part, at least, responsible for some well recognized defects in the practice of clinical medicine that may actually hinder its progress. A brief consideration of some of them would, therefore, seem timely.

A. The Menace of Excessive Laboratory Procedures.

Excessive reliance upon laboratory tests has hindered the progress of clinical medicine in various ways as a result of:—

(1) A tendency prematurely to accept and apply new laboratory tests of promise.

(2) The indiscriminate utilization of accepted laboratory procedures that are in reality of value only in a limited domain.

(3) An improper interpretation of tests of known value through ignorance of their clinical significance.

(4) An unwise reliance on positive laboratory findings to establish a diagnosis to the exclusion of other data, that may, perhaps, be much more important.

B. Specialism and Specialists.

Whether specialism with its increasing subdivision can be applied to clinical medicine in the same way that it has been to commerce and industry is a very debatable question. The greatest danger of all to clinical medicine lies in the fact that specialism carries with it the inherent danger of narrowness and monotony, potential foes of the faculty of concentration, the power of observation and decisive correlation. It tends fundamentally to destroy those intimate relations between physician and patient that constitute the very essence of the healing art. Specialism can probably not be checked, but unless its abuses are restrained a dark era in clinical medicine will have to be faced. Sanity and extremes never mix.

C. Changes in Medical Practice.

The development of "group clinics" is the most striking contemporary change in the practice of medicine and is a

direct result of modern specialism. Group practice unquestionably has many definite advantages, but it is unquestionably destined to failure unless it consistently deals co-operatively and unselfishly with the general practitioner. Granted that the work skilfully done is correctly analyzed and properly applied, failure none the less threatens "group medicine" if it be forgotten that impersonality in the practice of medicine inevitably foreshadows loss to the public.

D. Changes in Medical Education.

That there is something wrong with medical education almost every one will admit. Probably the most significant change in contemporary medicine from an educational standpoint has been the introduction of the so-called full-time system in the clinical departments. Its advocates claim that a close association between medical education and practice is by no means essential, and seem to resent the conception of clinical medicine as an application of the science to an art, or craft, or vocation. There is such a thing as *impractical* idealism being carried too far. The whole basis for medical advance has been founded upon just this co-operation between the clinical practitioner, artisan if you will, and the research devotee, each serving and advancing the same science; but there never has been, and never can be created a science of medicine apart from the practice of clinical medicine. If the full-time system is to be the best system applied to medical education, it is imperative that certain guiding principles be borne in mind as the scheme is worked out. Some of the most important points would seem to be these:

(1) The fundamental *duty* and *moral* obligation of any medical school is to supply a needy public with an *adequate* number of alert, sane and trustworthy practitioners as eager to prevent as to cure disease. To meet this need contemporary medicine must undertake a radical revision of both the premedical and the medical curriculum along lines that will better develop altruistic and humanitarian motives as the controllers of scientific ardor.

(2) The teachers employed in meeting this moral obligation must be qualified both to impart knowledge and to inspire enthusiasm. These requirements cannot be met except by men who have demonstrated their ability to advance clinical medicine. It must be remembered that students are best stimulated by contact with clinicians of mature development and accredited success.

(3) A medical school does not completely fulfil its moral obligation to the community by conferring medical degrees. It is obligated to keep behind its graduates—and provide for them, as well as other practitioners, ready means for post-graduate instruction, for training in the various specialties, and for opportunities for higher research work.

(4) Finally, a medical school, both by precept and example, must seek to inoculate a sustaining philosophy in the souls of its graduates. The philosophy of medicine implies a cheerful acquiescence to the burdens of the day. Such a philosophy is needed by every successful clinician: it is practical even though idealistic. It does not develop best in the materialistic atmosphere of a pure science not learned and pursued in love.

Radium Therapy in Certain Benign and Malignant Conditions; By William D. James and Albert W. James, *Southern Medicine and Surgery, July, 1922.*

In uterine fibroids radium should, as a rule, replace surgery. However, when operative procedure has to be used in these cases a supra-vaginal hysterectomy is done. This should be followed by radium treatment as the cervical stump is often the seat of future malignancy, which necessitates a total hysterectomy. Other benign conditions which respond most favorably to radium are lupus erythematosus, keloids, moles, and naevi. A warning is sounded against the treatment of moles with radium before there is some evidence of irritation. The greatest field of radium therapy lies in the treatment of malignant conditions, epithelioma and carcinoma, but one must not make the mistake of considering radium as a panacea for malignancy. Excellent results have been obtained in the treatment of inoperable carcinoma of the cervix, and the hope is expressed that a time will come when radium may replace surgery in operable cases of this type.

The Action of Radium on Cataracts; By Martin Cohen and Isaac Levin, *Jour. Amer. Med. Assn.*

1. The application of radium to the eye is harmless.

2. There is diminution of lenticular opacifications under the influence of radium.

3. Should a cataractous lens become matured subsequent to radium treatment and should then an operation be required, no difficulties will present themselves.

4. It is therefore advisable to submit a sufficiently large number of immature cataracts with useful vision to a proper course of radium treatment so that a correct estimate of the value of the method may be obtained.

The Classification of Uterine Carcinoma for the Study of the Efficacy of Radium Therapy; By Henry Schmitz, *American Journal of Roentgenology, August, 1920.*

Cases of uterine carcinoma are grouped as follows:

1. Cases clearly operable after a physical examination.
2. Cases doubtfully operable—"Borderline cases."
3. Cases in which a radical operation is absolutely impossible.
4. Cases so far advanced that all treatment is hopeless and that are subjected to it for purposes of palliation.
5. Cases that recur after an abdominal panhysterectomy.

Up to the present date surgery has been superior to radium in cases that are clearly operable. Borderline cases have met with such disastrous results under surgery that most surgeons refuse to treat them. They form the ideal group for radium therapy. Cases in Group 3 give much better results when treated with radium alone than when submitted to surgical or cauterization methods along with radiation. In Groups 4 and 5, however, the use of radium secures little but palliation with, in some cases, prolongation of life.

Pernicious Vomiting in Pregnancy By Carlton Oldfield B.M.J., May 22nd, 1822.

Thirty-five cases of pernicious vomiting in pregnancy have been met with by the author in twenty years' experience. Of these twenty-nine only followed his treatment in every point, and these are the cases which he reports in this paper. The author maintains that pernicious vomiting is neurotic in origin. Patients are placed in hospitals and nursing homes. It is most essential that the nurses employed be in sympathy with the method of treatment. A bowl must not be provided for vomiting, and the words "vomit" and "sickness" must not be mentioned in the presence of the patient. The diet is a normal one. A rectal infusion of 4% glucose is usually given, by the drop method. This relieves the thirst and feeling of exhaustion, and, by diminishing acidosis, may lessen the tendency to vomit.

The Foetus as a Mineral Parasite--

IT has been definitely established that during gestation the foetus acts as a mineral parasite.

If the mother's diet during these eventful months is deficient in mineral salts imperatively demanded for the development of the mineral structure of the child, the deficiency is made up at the expense of the mother's tissues.

This brings about a corresponding loss of vitality both for the mother and for her prospective offspring.

It is for this reason that a liberal quantity of Grape-Nuts with milk or cream will be found of value in the diet of expectant mothers; to provide an adequate mineral content in the mother's blood during the period of utero-gestation, and also an adequate mineral content in her milk during the subsequent period of lactation.

The high food value of Grape-Nuts is shown by the fact that Grape-Nuts contains 95.25% of solids, including 11.88% of protein; 78.76% of carbohydrates (of which 48.24% is soluble, as dextrin, reducing sugars, etc.) and 2.27% of mineral salts.

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Grape-Nuts with milk or cream is well suited for supplying the elements required by the developing child; it is admittedly a good all-round food for the mother.

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In most cases the results are very satisfactory, when all requisites are met. One of the main difficulties, however, lies in persuading the patient to enter a hospital. After this has been done the treatment is fairly simple. Of the twenty-nine cases treated, vomiting ceased almost immediately in all, and abortion was necessary in only one instance.

Some Common Defects of Diet and their Pathological Significance: Abstract of a lecture by E. Mellanby: Lecture II., B.M.J., May 27th, 1922.

In the first lecture Dr. Mellanby divided foods into two groups. The larger, which included the major portion of the average diet, was practically devoid of sodium, calcium, chlorrine, and two vitamines, namely, the fat soluble A. and the anti-scorbutic factor. He stated that in most cases a natural food was better than an adapted one. For instance, sour milk in which the caseinogen had been precipitated and the calcium lost, if used in a diet deficient in fat-soluble vitamine, made resulting rickets much worse.

Experiments were cited to show how butter is deficient in calcium. Animals fed on butter showed the effects of deficiency. The addition of calcium produced some improvement, but the use of cod liver oil as the fat of the diet was much more satisfactory. The cod liver oil was able to utilize all the calcium introduced, and the effects noted were much more striking. The growth which resulted also seemed to indicate that there was a great deal more of the vitamine present in cod liver oil than in butter. Another striking feature of cod liver oil was its iodine content. Animals fed on it had normal thyroids while animals eating other fats showed very large thyroids. The effect of cod liver oil did not lie entirely in the iodine content as it was found that the feeding of iodine to animals with exophthalmic goitre had quite the opposite effect to the administration of cod liver oil to the same type of animal.

A rather remarkable effect was noticed in the case of cereals. Dogs, on a diet with olive oil as a fat, and white flour as a cereal, appeared to be fairly normal, whereas dogs which had had oatmeal developed rickets. The explanation of this was not known, but it was also found that a dog brought up on polished rice plus wheat germ showed worse rickets than a dog brought up on rice alone without the wheat germ.

DR. JUNIOR: "Here's the word—'Antiades'— with accent on 'ti.' It says here it means tonsils; the thought being 'opposite to' or 'opposed to'—and is used as 'swollen tonsils,' in Medicine. Isn't it remarkable the large number of words with the Greek prefix—'anti'—attached to their roots?"

DR. SENIOR: "And does this not lead your thoughts to our modern, 'Anti-phlogist-ine'—the scientific name for a scientific means with which to 'oppose inflamed, swollen tonsils'—or any other inflammatory condition?"

DR. JUNIOR: "Yes,—and I wonder why 'Antiphlogistine' is not in our modern dictionaries? It certainly is a part of modern English——"

DR. SENIOR: "And it belongs in the dictionary. Moreover, I am sure that no fairminded lexicographer of today, can longer overlook the omission of 'Antiphlogistine' from his former text; but will realize a dictionary of the English language is not complete without the well-known significant word— ANTIPHLOGISTINE."

DR. JUNIOR: "I'm going to write for the Ear, Nose and Throat booklet which the Antiphlogistine people send to physicians."

DR. SENIOR: "Have them send two copies."

In the treatment of human rickets children were fed on minced raw meat, potatoes, greens and milk pudding. In addition to these they were given cod liver oil three times a day and an orange. On these diets the rickets were cured.

Oral Sepsis and Systematic Disease: By W. Bertram Watson, M.D., The Practitioner, June, 1922.

There are two types of oral sepsis: (1) pyorrhœa alveolaris, and (2) apical infection. The former is easily recognized, and, in many instances, micro-organisms from pyorrhœa alveolaris are counteracted by bactericides of the digestive tract. With the second type of oral sepsis, however, it is much more probable that direct infection of the blood stream will result. The site of such infection is not visible, and its existence can only be ascertained by means of radiography. The diseases in which oral sepsis is thought to play a part are cited, and include: simple and malignant endocarditis, occasionally arteriosclerosis, pernicious anæmia, hyperthyroidism, dyspepsia, even appendicitis and gall stones, diseases of the nervous system, in which remarkable results are cited as to the effect of teeth extraction on the mental condition of insane patients, nephritis, certain diseases of the eye, and, lastly, rheumatic diseases. In view of the great importance of a clean mouth and good condition of the teeth, the author urges a closer co-operation between the physician and the dental surgeon.

The Problem of the Radium Therapy of Cancer; By Arthur Burrows, B.M.J., *July 8th, 1922.*

Radium dosage is fully discussed in relation to various types of tumors and lesions. The number of possible variants in dealing with areas in different parts of the body makes the system of ray treatment very complicated. What is needed is a large number of physical measurements of the different parts of the human body and of pathological growths, and a full and complete investigation of the nature of the lethal dose for cancer cells. With reference to the work done by the Manchester Radium Institute the writer says: "Many cases of carcinoma of the cervix of the uterus, breast, skin, lip, and other regions are in perfect health who would but for radium be dead; while endothelioma of the parotid gland and spindle-celled sarcomata show still more gratifying re-

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sults. Moreover, short of cure much valuable palliative work is done, while in non-malignant conditions, such as exophthalmic goitre, Hodgkin's disease (when young), keloid, cavernous and capillary naevi, the percentage of cures is high; finally, radium is specific for excessive uterine haemorrhage and spring catarrh."

Selections

Radium Therapy in Cancer of the Tongue; *B.M.J., March 4th, 1922.*

Sluys (Le Scalpel, February 4th, 1922) writes hopefully of the modern treatment of cancer of the tongue by radium puncture. He gives a clear summary of the aims and methods of using radium for the destruction of malignant disease, and points out the tendency to use short-waved rays for their greater penetrating power. He gives a list of various tissues showing their sensitiveness to these rays, from the extreme sensitiveness of mycosis fungoides to the very slight sensitiveness of fibrous tissue. The sensitiveness of new growths is related to their histological structure. In the radium puncture treatment needles charged with radium salt are introduced into the tumor and left for seven or eight days. A diphtheroid-looking membrane forms, and after that clears away one may expect good results. It is important to treat any lymphatic infection or enlarged glands as a preliminary. The writer describes the technical methods of measuring and recording the strength of radium emanations used. It should be remembered that new growths become radio-resistant in the course of prolonged treatment, as opposed to normal tissues, which become more sensitive. Hence it is important to give an initial dose of radium strong enough to destroy all the neoplastic cells and to avoid repetition. The writer showed two cases to illustrate the good effects of radium puncture in lingual cancer.

Radium and Cancer; *Indian Medical Record, November, 1921.*

Cancer varies in its type in common with other diseases. The degree of malignancy which it exhibits is probably controlled by the changes in a patient's tissues which favours its outbreaks. These changes may be due to some form of degenerative nutrition, and according to their degree, may determine

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whether a carcinomatous process assumes an especially malignant type, or as in case of rodent ulcer, by mildly malignant. The causes which are regarded as exciting in cancer bear out this hypothesis. A traumatism which in one person is followed by a cancerous growth, in another is recovered from without any untoward incident. The same influence is apparent in the results of treatment. The successes of surgery may be due not only to the removal of the disease, but to the arrest of the nutritional changes favourable to its development. To go a step further; research work in the present day is almost entirely confined to the pathology of cancer; from all this we have learnt much, but still the problem remains unsolved. Bacteriology, again, in this regard has failed us. So far it may be that the true area of investigation has been overlooked, and that the future will show that the problem, after all, was one to be solved in the laboratory of the physiologist. The local nutritional changes in the tissues caused by radium, by which a cancer process is arrested, may, as far as we know, be effected in a general sense. At least it would seem that research work with a view to determining the precise physiological effects of radium upon normal tissues might throw some light upon its action in cancer.

The Treatment of Tuberculous Adenitis; By Boggs, *American Journal of the Medical Sciences, July, 1921.*

1. Radium will cure more cases of tuberculous adenitis than any other method. Radiotherapy alone will cure over 90 per cent. of these cases.

2. Surgical treatment is always contradicted primarily in every case of tuberculous adenitis.

3. Those who still hold to radical operation will find the responsibility harder to shoulder with the ever-increasing recognition of the fact that tuberculous adenitis can be cured without it.

4. Hard, fibrous nodules following radiotherapy seldom contain any tuberculous foci, but it may be advisable to remove these nodules through a small incision the same as a foreign body.

5. It is to be remembered that large cervical glands may be due to sarcoma, Hodgkin's disease, leukemia, etc., and that radiotherapy is still the best form of treatment for multiple glandular tumors, but the end results are not the same as when the enlargement is due to tuberculosis.

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6. In the treatment of tuberculous adenitis in the future, when a more systematic raying is employed and when the cases are referred earlier, this method of treatment will be universally accepted.

The Treatment of Hodgkin's Disease by Radium; By Curtis F. Burnam, *Surgery, Gynæcology and Obstetrics.*

Treatment must be so planned that adequate radiation will be applied to all parts of the body affected by the disease. The guide to treatment is to be found in the effect on the gland masses, the blood, the appetite and the general health of the individual case. The reduction of gland masses, amelioration of discomforts and improvements in general health occur in most cases and sometimes are most striking in very advanced cases. Excluding all patients where apparent cure had been less than three years, two cases of lymphosarcoma are reported perfectly well and without signs of trouble for more than five years; one was an extensive neck case, and one an abdominal case. Four cases had been apparently well for over three years; one with pharyngeal and neck involvement, one with mediastinal, one with tonsil, neck and groin, and one case with neck and axilla involvement. Excluding all patients where apparent cure had been less than three years, where Hodgkin's disease was diagnosed, one patient with mediastinal and neck involvement was well for four years, and two cases were well for more than three years. One of these had neck, axilla, groin, and iliac glands; the other groin, axillary, neck and mediastinal involvement. The author states that, while there is no objection to the complete surgical removal of a localized group of glands, if it is followed by radiation, he does not consider that such procedure is necessary.

Mixed Tumors of the Parotid and their Treatment by Radium; By F. McN. Johnson, M.Y.M.J., *July 19th, 1922.*

Dr. F. McN. Johnson, of New York, grouped these tumors in three types namely, benign adenoma, malignant adenocarcinoma and mixed tumors. The first, he said, grew slowly, was encapsulated in the gland, and rose from acini or glandular ducts; occasionally malignant changes were seen. The second type of growth developed rapidly, sometimes metastasized, and sometimes contained cysts. The malignant ones were solid. The third type arose from embryonical remnants. Radium always

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acted on the same tissues in the same way, therefore these tumors probably gave the same reactions as other tumors of the same type. Abbe had reported a five year cure. The youngest patient treated was four years old, the oldest eighty-two. In one case there were eleven recurrences. In these cases deep penetration could be used without destroying the skin or the cranial nerve if care was used. Radium might produce good results in cases unfavorable for surgery.

Treatment of Tonsils by Radiation from Radium Salts; By Francis H. Williams, J.A.M.A., *July 1st, 1922.*

Radium irradiations have a selective action on lymphoid tissue, of which the tonsils are largely made up. Fifty milligrams of pure radium bromide was applied in a suitable container, directly first to one tonsil, then the other, for from ten to twenty minutes to each tonsil, according to the filter used, and the condition of the tonsil and of the patient. The method of carrying out the treatment is based on measurements, made with a fluorometer. The method has a remarkable degree of safety, if properly carried out, as the action of the remedy is largely exerted only where it is needed. Therefore, this remedy can be used without causing any harmful effects, either immediately or remotely. No patient was required to modify his usual diet or lose time from work.

Paravaginal Radium Applications;

Bumm (Zentralb. f. Gynak., April 21st, 1922) in a preliminary note records the treatment of twenty patients by applications of radium made through an incision leading from the skin of the buttock through the fat of the ischio-rectal fossa into the base of the broad ligament; the cases selected were those of metastatic infiltration of the bases of the broad ligaments from primary growth in the cervix uteri or of similarly situated recurrences of the growth after operative treatment. From 80 to 100 mg. of radium element were introduced for from forty to sixty hours; the local reactions were unimportant. Subjective and objective improvement followed in all cases. In a later series the writer has combined paravaginal application of 50 mg. of radium element with intrauterine introduction of 50 mg. and application of 70 mg. in the neighborhood of the primary growth. In two cases he has employed

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radium drainage by Dael's method, radium contained in an india-rubber tube being introduced within the pelvis along a track leading from the neighborhood of the anterior superior spine along the innominate bone to emerge in the ischio-rectal fossa; Bumm, however, finds the paravaginal method described above to be simpler and to permit of more certain and direct approximation of the radium to the metastatic foci.

A Case of Juvenile Deforming Arthritis of the Hip (Sur un cas d'arthrite deformante juvenile da la hanche.) *Rev. d'orthop.* By Yvernault.

The case reported was that of a man of 21 years who, at the age of 7, injured his right knee in a fall. The knee was immobilized for two months and cured. There had never been any disturbance of hip function. During military service the knee again caused trouble. Examinations showed signs of right coxa vara with shortening of 2 cm., and an equal amount of upward displacement of the great trochanter, considerable limitation of abduction of the hip, and some laxity of the hip joint. There was no functional trouble in the knee joint. The X-ray showed considerable flattening of the head of the right femur, especially in the transverse diameter, and that it was much lower than the top of the great trochanter. The acetabulum was similarly deformed, being molded to the shape of the head of the femur. The neck was shortened to such an extent that the base of the femoral head was almost on a level with the inter-trochanteric line. The same condition, though much less marked, was found also in the left hip. The bilaterality of the lesions and the fact that they developed without causing any particular trouble suggest that they were of congenital origin.—*Surgery, Gynæcology and Obstetrics.*

Burns and Their Treatment: An Experimental, Anatomo-Pathologic, and Clinical Study (Les brulures et le leur traitement: travail experimental, anatomo-pathologique et clinique *Rev. de Chir.*, By A. Kotzareff.

In order to test the theory that the fatalities in cases of burns are due to intoxication combined with nervous shock as suggested by Askanazy of Geneva, the author carried out a series of animal experiments and a series of clinical trials of serum treatment of hospital patients. All the findings clearly demonstrate that the only sustainable theory is that a toxæmia is produced in burns.

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A reaction of the blood or lymphohæmatopoietic system manifested by eosinophilia is not characteristic of burns alone, but is observed in every intoxication due to the destruction of tissues.

The experiments show also that a burn may be fatal even when the nerve reflex or nervous shock and the alteration of the blood are overcome. The nerve shock may be prevented by the induction of general or local anæsthesia or by section of the nerves of the burned area. Alterations of the blood or the formation of thromboses may be prevented by ligation of the vessels of the burnt areas.

The toxins pass by the blood capillaries or lymphatics and are arrested in the lungs where a mass of eosinophiles is seen. If death occurs within twelve or twenty-four hours after the accident the blood drawn during the first twelve hours shows an increase of eosinophile polynuclears. After twenty-four hours the number decreases. The same thing is seen in lung sections of guinea pigs or men dying within twenty-four hours of the accident. The rapid intoxication does not give the organism time to react.

Passive immunization by vaccination or auto-immunization by the injection of blood or serum of an intoxicated animal increases the chances of survival. The organism reacts as always by the production of antitoxins. If the quantity of toxins is greater than that of antitoxins the patient dies intoxicated, but if the opposite is true he survives. The life of an animal intoxicated to the degree of toxæmic shock may be saved if there is time to inject sufficient antitoxin to neutralize the toxins.

Serotherapy is therefore indicated in cases of burns if the injection of serum can be made very rapidly so as to prevent the action of the toxins. Repeated injections of the serum of a burned animal causes gradual disappearance of the symptoms of toxæmic shock.

Despite the injections of serum, the general treatment of burns by the subcutaneous injection of physiological serum or the withdrawal of small quantities of blood to diminish the toxæmia and the administration of heart stiumulants is indicated. It must not be forgotten, moreover, that burns cause a disturbance in the equilibrium of the blood. This early disturbance, which is characteristic of toxæmic shock, favors the rapid development of infective complications. Therefore, as soon as the serum injection is made the possibility of rapid and early infection should be guarded against.—*Surgery, Gynæcology and Obstetrics.*

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Multiple Sclerosis and Facial Paralysis (*Deutsche Ztschr. f Nervenh*) By M. Nonne.

Three cases in which after a period of observation the diagnosis of multiple sclerosis could be made, are here described. In all three there was unilateral transitory facial paralysis with normal electrical reaction. In two of the cases the facial palsy was recurrent. The author infers, therefore, that where facial paralysis of obscure origin makes its appearance or where this disturbance is recurrent multiple sclerosis should be suspected. Further where in making a differential diagnosis a history of spinal disease suggests multiple sclerosis, if it is found that a transitory facial palsy, for example a disturbance of the eye muscles, had been observed, this circumstance should be considered as evidence of multiple sclerosis.—*The Journal of Mental and Nervous Disease.*

Miscellaneous

Aids to Digestion

The salivary glands are not immune to the effects of constitutional conditions accompanying or following acute infections or other general disorders, nervous or glandular. They are not always up to par, yet the whole chain of digestive processes is linked with their proper functioning. Let the patient go beyond the capacity of the ptyalin-producing glands in his choice of foods or in his desire to "build up," and he starts a vicious circle of indigestion that may have more serious consequences than his former condition. Hence the call for a diastatic ferment that can be taken with the food to supplement the defective ptyalin secretion. Parke, Davis & Company have been supplying such a product for many years, and of late its diastatic activity has been increased 100 per cent. The name of this product is Taka-Diastase. The product itself is supplied in powder, tablet and capsule form, and as a liquid; also in combination with tonics and other digestive agents.

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Original Communications

Child Welfare and the General Practitioner

By Dr. W. J. Bell, Toronto.
Of the Provincial Board of Health.

Child Welfare is a very broad subject, bearing a relation to practically every branch of human endeavour. It interests in a very special way the social worker, the professional nurse and the medical practitioner, and it is to outline the relative activities of these three groups in the general scheme of Child Welfare that this paper is written. It is necessary that a full and complete understanding of the relations of these three groups, intimately concerned, should obtain, as misunderstanding in this respect has occasionally produced a situation of confusion in which effort is wasted and success postponed.

In a broad way Child Welfare has to do with everything that pertains to the growth and development of children, and includes such subjects as housing and recreation, town planning, institutions for infants and children, boarded homes, juvenile courts, school medical inspection, medical and nursing supervision of infants and children, and many other subjects of a similar nature. To deal with the subject of this paper we select one of the subdivisions of Child Welfare, viz.: Child Hygiene, the special activity which covers the medical and nursing supervision of infants and children. In its various branches the broad field of Child Welfare interests the social worker. The special subdivision "Child Hygiene" specifically concerns the physician and the public health nurse, with the social worker acting as a valuable auxiliary to both. Child Hygiene is the distinctly medical aspect of Child Welfare.

When we come to the special field of Child Hygiene we have to deal with the two main factors, viz.: the physician and the public health nurse, the latter co-operating with the former and assisting in putting into operation suggestions initiated by him for improvement of the health of children. Under no circumstances does the public health nurse diagnose disease or prescribe treatment. Should she observe a conditions suggesting abnormality or defect she refers the case to the family physician. Where treatment is ordered the nurse is available to assist in carrying out the physician's instructions.

The physician may be spoken of as the pivot or the centre for the whole scheme of Child Hygiene. With his special knowledge regarding obstetrics and pre-natal care he is able to direct the mother to the advantage of the child before delivery. After birth he is able, through his knowledge of infant feeding, to direct the nourishment of the child along scientific lines, and also to supervise its progress at regular intervals, to the end that defect either congenital or acquired may be detected before permanent damage ensues. Actual illness or even a sub-standard physique is an economic loss, especially regrettable if it can be avoided, and in order to insure the minimum in this respect it is necessary that every child be kept continuously under medical supervision at regular intervals. In other words, every physician should be a practitioner of Child Hygiene. Defect is more easily prevented than cured and is more readily remediable in an early than in a late stage. Regular supervision ensures early detection and to every child this regular supervision is absolutely essential. Consequently every physician should consider Child Hygiene—one of the important branches of preventive medicine—an essential part of his regular practice.

It is desirable in certain places that what is called a Child Welfare Clinic be conducted. The propaganda originating from such public work stimulates an intelligent interest in the growth and development of children and tends to popularize the movement. Further, many people of limited income, who would otherwise feel themselves unable to furnish such care to their children, can through this institution have that care given at no expense to themselves, and at a very small sacrifice of time and trouble on the part of the physician in attendance. No case of illness is treated at the clinic, only well babies, or those alleged to be well, are supposed to attend. The purpose of the clinic, as of all Child Hygiene, is to keep well children well and to detect defect at the earliest possible

date that remediable measures may be introduced early. Cases of illness coming to the clinic are to be referred in every case to the family physician, no treatment being prescribed or suggested. One of the important functions of the Child Welfare Clinic is the promotion of the correct feeding of infants. Breast feeding must be stressed and the technique of breast feeding constantly taught and impressed.

In cases where breast feeding, for good and sufficient reason, is not carried on, a proper modification of cow's milk should be prescribed. Proprietary foods must be objected to on every possible occasion. An infant, presumably well on an incorrect feeding, should have that feeding replaced by something which will constitute a properly balanced diet for the infant, as it is quite within the realm of probability that the child's food tolerance may be broken by this unbalanced diet or that it may develop one of the deficiency diseases. Any defect constituting a menace to the well-being of the infant should be noted and referred to the family physician. No treatment, medical or surgical, of a pathological condition, medical or surgical, should under any circumstances be instituted in a Child Welfare Clinic. Any case requiring the same should in every instance be referred to the family physician.

It is the experience that the medical aspect of the clinic requires special organization. The administration from a medical point of view must be entirely under the control of the local medical group. The clinic, as a whole, should be under the auspices of the local Board of Health, and the Chairman of the Child Hygiene Committee, controlling the medical aspect of the clinic, should be the local Medical Officer of Health.

When a clinic is to be opened at any point, the following procedure has been found to be satisfactory. The local medical men are visited by a medical man interested in Child Welfare, and a discussion of the work proposed takes place. This discussion is best carried on with physicians assembled in a group. After full discussion and the clearing up of any point of argument or misunderstanding, the physicians appoint from amongst their number a group of three, the local Medical Officer of Health and two others, who constitute the Child Hygiene Committee and who agree to be responsible for having a medical man to conduct each clinic. Following this, all local physicians willing to conduct a clinic express themselves accordingly and their names are enrolled on what may be called the Clinic Medical Roster. These men so en-

rolled are called in turn by the Child Hygiene Committee and are assigned for attendance at a weekly clinic, a period varying from one month to six months as the case may be. If, on any clinic day, the clinic medical attendant for that day finds himself unable to be present, he notifies the Chairman of the Child Hygiene Committee, who secures another man to take the place of the one unable to be present. Occasionally the local medical group will delegate one man to conduct the Public Child Welfare Clinic, leaving him free to call in any assistants he may require.

This is a matter of local management which should be dealt with by the local medical group interested.

It is desirable, whenever possible, that the local Medical Officer of Health, the Chairman of the Child Hygiene Committee, be present at each clinic, for two reasons. First, for the support of the physicians conducting the clinic to help prevent any remark or suggestion which might have an unethical misinterpretation later, or the taking of any action not in accordance with the ethics governing a child welfare clinic. Second, for the protection of the clinic physician and of the clinic, should misrepresentation of suggestion made or action taken at a clinic occur.

Complaints regarding the medical conduct of a clinic should be made to the Child Hygiene Committee, by whom the complaints should be investigated and adjusted.

It is quite obvious that it is very difficult to draw a fine line between sickness and health, and the clinic physician must use great discretion and the most impartial discrimination in dealing with the cases presented in order to be absolutely fair to himself and to his colleagues. It is only in this way that harmony may prevail and child hygiene make progress.

The Child Welfare Clinic is not, in our opinion, the sum total of Child Hygiene, nor is it from the physician's viewpoint the major factor in the whole scheme, although it does furnish at present the largest field of misunderstanding and provides the major portion of the argument in connection with the work. Speaking as a physician to physicians, I feel the important factor in the whole scheme is the mental attitude of the practitioner. Unselfishly developed, this will lead to co-operation with his colleagues, elimination of petty personal considerations and an appreciation of the work as a national service. It will, in addition, mean that in his private practice or in his public clinic, the practitioner will serve

his infant clientele in the capacity of a "train and track inspector" rather than that of a "wrecking crew."

In conclusion, let me say that Child Hygiene, our part of Child Welfare, in order to be entirely successful, requires not the sympathetic toleration of the profession, but the active, hearty support and co-operation of each and every medical practitioner.

An Analysis of Three Thousand Cases of Obstetrics.

By S. P. Ford, M.D., Norwood, Ontario.

Whether we accept the evolutionary theory of Darwin as to the origin of human life, or fall back upon the literal interpretation of the Scripture narrative, it comes to the same thing in the end, namely, "the Lord God formed man of the dust of the ground and breathed into his nostrils the breath of life and man became a living soul." And in the never-ceasing reproduction through all the successive ages of the world's history, in all parts of the earth, among all the divergent races, by the self-same process of this complex being, formed of the dust of the earth and the breath of God, lies the greatest miracle of all miracles. Many men are found to-day who solemnly affirm that they do not believe in miracles, but they do nevertheless, for they believe in themselves. Let these doubters consider for a few moments the apparently simple, but marvellously complex, process by which the result is wrought out, the coming together of the sexes, the passage from the male to the female of one or two centimetres of a white, glairy fluid, and from this small beginning, by some mysterious process of constructive evolution, unseen by mortal eye, the building up of this human mechanism with its wonderful combination of muscles, arteries, veins, capillaries, nerves, and lymphatics, the elaborate provision made by the formation of richly endowed, special organs for the introduction, digestion, and assimilation of food, and for the regular elimination of the various forms of waste matter, and the whole work culminating, at the termination of a stated period of two hundred and eighty days, in the issuing into the world of that crowning glory of the Almighty's handiwork, a perfect child. Who will dare to say that this is not the greatest miracle of all the ages? In the volume of the Sacred Law it is written, "Keep thy heart with all diligence for out of it are the issues of life." In all sincerity, I can say that from

the first time I entered a lying-in room more than fifty years ago as an *accoucheur,* down to the last time only a night ago, an undertaking repeated over three thousand times, I always did so with a profound sense of the responsibility resting upon me, as well as the great honor conferred.

Of three thousand cases attended in fifty years, 1,574 of the infants were males, 1,424 were females, and two were hermaphrodites.

My youngest subject was a little Home girl who became pregnant at the early age of twelve years and nine months, and was delivered of a healthy, well-formed male child at the age of thirteen years and six months; my oldest subject lacked only two months of completing her fiftieth year, and in both cases, strange to say, the labors were comparatively easy. I note forty cases over forty-six years of age, and twenty-five under fifteen years of age; one case in which pregnancy did not take place until eighteen years of marriage, although husband and wife were both apparently in perfect health, devoted to each other, fond of children, and co-habited during the whole period; and three cases in which fourteen, sixteen and seventeen years, respectively, intervened between the first and second pregnancies.

Placenta Previa. I have been called to six cases of this class, three in my own practice and three in consultation. Three of them were cases of central implantation, and three of lateral or partial implantation. The lateral, as compared with the cases of central implantation of the placenta, were more easily disposed of. If the os was not sufficiently dilated to allow the introduction of the hand, I tamponed the vagina as tightly as possible with antiseptic gauze and waited. As soon as sufficient dilation had taken place, I introduced my hand, grasped the feet and completed a podalic version as rapidly as possible. As marginal attachment of the placenta does not, as a rule, give rise to special symptoms before gestation has advanced to seven months or over, it may be possible sometimes to save the child. But in cases of central or vicious implantation, symptoms occur at an earlier period, and as soon as the diagnosis is definitely established there is but one thing to do and that is to empty the uterus as speedily as possible without temporizing with either tampon or ergot or anything else. In two of these cases, I was able to pass my hand between the rim of the placenta and the uterine wall and do a version. Both mothers recovered but the infants had been dead for some time. In the third case, a young primapara recently from England, there was no haemorrhage until the eighth month. It came on, however,

suddenly, and as I was unable to pass my hand around the edge of the placenta, and the urgency being extremely great, I pursued the heroic course of pushing my hand, amid terrific hæmorrhage, right through the centre of the placenta, fortunately avoiding the insertion of the cord, and grasping the feet I succeeded in turning and delivering both infant and placenta together in a few minutes. The result was very gratifying to me, namely, a living mother and a living child.

Puerperal Eclampsia. Twenty cases. Five of the twenty cases proved fatal, and in all of these five cases the eclamptic seizures came on before delivery, leading me to the conclusion that the post-partem cases are not to be so much dreaded as the ante-partum ones. As to treament in sthenic cases with full, bounding pulse, high temperature, purple countenance, I would not hesitate a moment about opening a vein and abstracting twenty-five or thirty ounces of blood. I have done this in several cases with the very best results. But in an asthenic case with feeble pulse, pale countenance and cold extremities, I certainly would not pursue that course; I saw it done once under such circumstances with a fatal result. Is it proper, in all cases where convulsions occur before delivery, to proceed at once to empty the uterus? My answer is no, not in all cases. If labour has already set in, and there is nothing to contra-indicate it, I would expedite it by all means, even by an *accouchement forcé.* But if labour has not already begun, I would wait, using every possible effort to control the seizures, until nature showed symptoms of commencing her work, and then assist her in every way. My experience has been that we only add to the trouble by endeavouring to excite a quiescent uterus to expel its contents. Many cases of threatened convulsions were warded off by appropriate eliminative treatment.

Face Presentations. If called early the condition may sometimes be rectified by manual interference. In only three of the eight cases was I able to rectify the position, either by external manipulation or with the assistance of the forceps, and had to resort to podalic version.

Arm and Shoulder Presentations. Ten cases. In three of the cases, in which I was called early and recognized the difficulty before the rupture of the membranes, I was able to change the presentation by external manipulation, and where this expedient failed I resorted to podalic version. The infant mortality in these cases was one in ten.

Prolapse of the Cord. Six cases. Succeeded in saving the child in each case, either by holding the cord out of danger

by my hand, or by fastening it to a gum elastic catheter and pushing it up out of harm's way until the descending head filled the pelvic outlet.

Occipito-Posterior Presentations. These have been comparatively rare in my practice, numbering only twelve, and as a rule have been very tedious cases. In a few of them I was able to change the condition by careful and persistent manipulation. In two cases I had to do a version, and in two others where the head was small and the pelvis roomy I delivered with forceps.

Uterine Hydatids. Four cases. In two cases representing one member of a twin pregnancy, and two forming a single shapeless mass, the so-called hydatiform mole.

Inversion of the Uterus. I record one case of complete inversion of the uterus, with the placenta still adherent to the fundus. It was caused by traction on the cord by the midwife before my arrival. In this case, strange to say, there was very little hæmorrhage, notwithstanding the laxity of the muscular fibre, and after peeling off the adherent placenta I had not very much difficulty in returning first one horn and then the other, and finally the body of the uterus. The patient made a good recovery.

Fancied Pregnancy. Have had six cases of this peculiar condition, one lady coming all the way from Manitoba, bringing with her a trunk full of baby clothes. She returned minus the baby, and had no use for the clothes until several years later.

Forceps Cases. I have resorted to the use of forceps in nearly two hundred cases, and would not feel safe to go to a case any distance from home without them, but, as a matter of fact, I have only used them twice in the last eighteen months. This I attribute to the use of pituitary extract. I was very sceptical about the benefit to be derived from it for some time, and hesitated to use it, but now I never go to a case without it. When I began its use I gave the full centimetre dose, but in one or two cases it brought on such violent expulsive efforts that I was alarmed for the safety of the uterine wall, and put the patient under an anæsthetic to relieve the strain. I avoid this now by giving only a half-centimetre dose at first and repeating it in twenty minutes or a half hour, if necessary; but in few cases will it be found necessary to repeat the dose. In these doses I have not found it to have injurious effect upon the infant. I have found pituitary extract especially useful in abortion cases at three or four months when difficulty is often found in emptying

the uterus of the small placenta or portions of membranes. In most of such cases I have found it act like a charm.

I owe a great deal of my success in obstetrics to the instruction and counsel of my preceptor, the late Dr. George Burnham, of Peterboro', and to the advice I received, when beginning my practice, from the late Dr. Hodder, of Toronto. "Learn," said he, "to distinguish between promptness and hurry; always be prompt, never be in a hurry. And, furthermore, make it a rule never to leave the lying-in room until one hour after the last stage of the confinement is happily terminated. Better to miss a dozen calls than to lose one patient." By the strict observance of this rule I have saved life in several instances.

Selected Articles

Jaundice in the New Born

By Sir Humphrey Rolleston, K.C.B., M.D., D.C.L., F.R.C.P.
President of the Royal College of Physicians.

Jaundice is both more frequent, and presents more interesting ætiological problems, in the new born than in older children. This is natural, for in the new born the effects of intra uterine infections, toxæmias, and malformations become evident, great changes take place in the conditions of the circulation and of the blood at the time of birth, and the open wound at the umbilicus and the aseptic alimentary canal may be invaded by virulent micro-organisms soon after the infant's entrance into the world.

The physiological jaundice of the new born becomes obvious on the second or third day of life as the red color of the skin fades; it seldom persists for more than ten days, and is so symptomless that no treatment is necessary. There are, however, some points of interest about it; rather various estimates of its incidence—from 30 upwards to 100 per cent. —have been given, but the higher incidence must be regarded as either unusual or the outcome of very meticulous observation, and an average of about 50 per cent. would probably be most nearly correct. The explanation of this idiopathic

or simple jaundice, which is also called icterus neonatorum *par excellence,* has varied less with the shifting hypotheses of jaundice in general than have the views about most other forms of jaundice not associated with gross mechanical obstruction; for the occurrence of the polycythæmia at birth and the probable subsequent hæmolysis have often suggested that the jaundice is hæmolytic rather than caused by an obstruction inside the liver, such as might be due to œdema of the liver-tissues from engorgement or to the presence of viscid bile in the small intrahepatic ducts, the result of the advent of large quantities of liberated hæmoglobin. The absence of bile pigment in the urine, its presence in the fæces, and the comparatively slight pigmentation of the skin show a resemblance to hæmolytic jaundice. Further, the recent method of van den Bergh, namely, testing the blood-serum by Ehrlich's diazo reagent, has shown that the bilirubin in the blood-serum in cases of simple jaundice of the new born is the same as that present in hæmolytic jaundice, and differs from the bilirubin present in the blood-serum of obstructive jaundice. This test, of which McNee gave the first account in English literature, should prove to be of great value in distinguishing clinically between the really obstructive and the hæmolytic forms of jaundice. The important practical point about physiological jaundice of the new born is its diagnosis from the grave forms of jaundice in the new born.

In grave familial jaundice, of which I collected 130 cases in 1920, the disease may be hereditary and is definitely familial, but is less prone to attack the first and second born than the later children in the families affected. It resembles physiological jaundice in the anatomical condition found after death, especially in the selective staining of the lenticular and other nuclei in the brain ("kernicterus"), and clinically in the early onset of a febrile jaundice, the presence of bile in the fæces, and the frequency with which bile pigment is absent from the urine. It was indeed regarded by Pfannenstiel, one of the first to describe it, as an intensive form of physiological jaundice of the new born. The prognosis, however, is very different, for out of 130 collected cases, 100, or 77 per cent., proved fatal; whereas physiological jaundice is by definition harmless. The history of other cases in the family is at present the surest guide, at any rate until drowsiness becomes well-marked. In a few cases there has been grave anæmia combined with the jaundice, and hepatic and splenic enlarge-

ment, but these are either complicated by some additional factor, or examples of a different disease. Two rare sequels may be mentioned: a green colour of the teeth, first described in this country by J. H. Thursfield and F. Langmead, and cerebral diplegia (Spiller). As regards treatment, acting on the assumption that grave familial jaundice is due to maternal toxæmia, pregnant mothers of previous infants dead of jaundice have been treated with biliary and intestinal antiseptics, namely, hexamine, salicylate of sodium, minute doses (1/20 gr.) of calomel, and hydragyrum cum creta. This has been successful or, to speak more cautiously, at least followed by freedom of the infant from jaundice in a number of cases. For the curative treatment of the jaundiced infants feeding by the mother's milk should be discontinued, and minute doses of calomel may be given. Dr. Herbert Williamson has most kindly allowed me to mention two cases, the details of which he will publish later, of recovery of infants with grave familial jaundice after the hypodermic injection of 5 c.c. of horse-serum daily until 20 c.c. had been given; both these were in families in which previous infants had died of similar jaundice.

Congenital obliteration of the bile ducts is accompanied by definitely obstructive and progressive jaundice, hepatic and splenic enlargement, and in the later stages by hæmorrhages. The rare condition of syphilitic stenosis of the common bile duct presents much the same clinical picture with the exception that there are other signs or evidence, such as a positive Wassermann, of syphilis which is not an ætiological factor in congenital obliteration of the bile-ducts. Uncomplicated congenital syphilis is seldom accompanied by jaundice, unless secondary infection of the liver occurs.

Infection spreading from the umbilicus, the skin, or from the intestine in the new born is extremely fatal from septicæmia. Jaundice appears later than in the other forms, about the fifth day of life, and is febrile.

Chronic hæmolytic jaundice may be congenital, and at first closely resembles physiological jaundice, both in its manifestations and favorable prognosis. In exceptional instances, it has been reported to be associated with congenital syphilis (Fournier and Joltrain). Acute yellow atrophy, rare at any age, is particularly so in the new born, but an acute secondary infection of the liver of congenital syphilis giving rise to the changes of acute atrophy has been recorded.—*The Practitioner.*

Sleeplessness in Infants

By Charles E. Sundell, M.D., M.R.C.P.
Physician to the Evelina Hospital for Children.

A child's life rests upon the tripod of food, warmth, and sleep. Serious interference with any one of these disturbs the others and endangers the child's existence.

It is important to realize what large periods of sleep are necessary to a child's health. Of the first seven years of a human being's life, four and a half are spent in sleep; of the twenty-four hours of the day, the new-born infant sleeps for twenty-two, the baby of six months for eighteen, and the child of four years for fourteen. While the child has no natural power of concentration—this has to be acquired as a result of education and training—he has, in a degree far superior to that of the adult, the power of relaxation; this shows itself in the acrobatic contortion of limbs, in the sudden change of interest from one object to another, but in nothing more clearly than in the capacity, shared with puppies and kittens, for suddenly dropping off to sleep.

For the child there is no true insomnia, no weary waiting for sleep to come; it is natural for a child to sleep readily and easily, and any change in the natural habit is to be ascribed to some disturbing factor foreign to his normal routine. A sleepless baby is a reproach to his guardians, and convicts them of some failure in their guardianship. In one type of disease only is there spontaneous failure of the sleep-habit—grave mental impairment such as is seen in Mongols or the hydrocephalic—apart from some such brain-defect, wakefulness in a child means that some removable cause is disturbing or preventing a natural tendency. In the search for what this cause may be, the first step is a visit to the nursery. Interrogation of the mother or nurse in the consulting-room is often barren of result, whereas a nursery visit at bedtime may yield the clue to the problem at once.

It is well to bear in mind that the cause for a baby's wakefulness is most often a simple one, and simple causes should be sought for first. Attention to the temperature of the cot and of the room, screening of lights and avoidance of clatter or loud conversation, are so obvious as to require nothing more than mention. Most common of all are the discomforts of the gastro-intestinal system—flatulence, colic, hunger and, what is so apt to be overlooked, thirst; many a child cries

in the night for a fluid, and is given instead the makings of a lump of casein-curd. It is always worth while giving a wakeful child a drink of water; it is seldom refused, and often satisfies.

There is a certain practice deeply rooted in the minds of all women as an unfailing cure for a baby's sleeplessness, namely, rocking. Rocking is unnecessary, but the baby first likes it, then he expects it, and very soon he begins to demand it and will not go to sleep without it. When this stage has been reached the misguided mother finds that she has forged fetters for herself which are extremely hard to break. While gentle rocking of an infant is only indirectly harmful, the same cannot be said of the vigorous tossing up and down to which some unhappy babies have to submit; as a method of producing wind such treatment is ideal. The doctor who derides rocking of prams and babies has to meet strenuous opposition from parents and nurses, but if he carries his point the day soon comes when they will turn in their sleep and call him blessed.

Some nurses unworthy of the name have a habit of ensuring freedom from disturbance of their own rest by giving young infants sugar balls (*i.e.*, muslin bags containing sugar) to suck; it is well to be alive to this, but detection may easily be delayed till the absence of the nurse removes this solace from the infant and otherwise inexplicable restlessness commences.

Two other causes of wakefulness must be borne in mind —irregular habits, and excitement while awake. The temptation to postpone the time for a baby's sleep, so that he may be admired by some relative or friend who is late in arriving, or so that his nurse may finish some work on which she may be engaged, must be strongly resisted. A sleepy child who is kept awake exhausts his nervous energy very quickly in peevish restlessness, and when preparations are at last made for his sleep he may be too weary to settle down. Physiological proof of this indisposition for slumber is to be found in the increased reflex-irritability of a sleepy child, an irritability which is soon soothed into sluggishness should sleep be not too long delayed, but which persists and increases if the balm of sleep is withheld.

Regularity of habits is one of the sheet-anchors by which the barque of an infant's health is secured. The re-establishment of a regular routine, after even a short break, frequently calls for patient perseverance on the part of the nurse,

but though the child may protest vigorously for several nights, absolute firmness seldom fails to procure the desired result. Excitement during waking hours is a common cause of restlessness at night. A baby should be regarded much more as a vegetable than as an intelligent human being; intelligence develops quickly and spontaneously, and attempts to force its display by the antics of onlookers are harmful.

The cases of sleeplessness which will not yield to simple treatment on the lines indicated are few, but when wakefulness has been allowed to become a habit treatment by drugs may be necessary. Drugs should only be resorted to when all other means have been tried and have failed. Administration of a hypnotic to an infant must be strictly reserved for the really exceptional case, and should be regarded as a last resource. Our aim should be merely to re-establish the normal habit of sleep in the child. This aim is best attained by employing drugs in a descending scale of dosage. A really adequate dose should be given the first evening, so that the child is certainly sent to sleep; the rest thus obtained will make him more ready for sleep the next night, and half the initial dose should then be given. On the third evening a quarter-dose should suffice, and on the fourth evening no drug at all should be necessary. For a four-months infant, 4 grains of ammonium bromide with 12 minims of syrup of chloral would be a suitable dose; for a child of six months, 3 minims of chloral might be added with advantage. Synthetic sedatives are unsuitable for young infants, and opium with all its derivatives is dangerous; the only possible justification for its use is the intense pain of an acute affection such as otitis media, and in such a case it can only be regarded as a temporary measure of relief and secondary in importance to direct treatment of the cause of the pain. Success in the treatment of sleeplessness in infants is a good standard by which to estimate the patience and skill of the practitioner. —*The Practitioner.*

Morphinism and its Treatment

By Harry Campbell, M.D., F.R.C.P.
Physician West End Hospital for Diseases of the Nervous System.

Most "opiate addicts," like drug addicts in general, are congenital neurotics. They possess the neurotic temperament, and for this, in my belief, the blood is mainly responsible.

I attribute the readiness with which they acquire the drug habit to this defect. These neurotic subjects are curiously elated and exhilarated by their first experience of an opiate, and, being weak-willed and unstable, they develop the opiate habit with fatal facility. Such patients are correspondingly difficult to cure.

The more stable type of addict generally acquires the habit through having been given the drug for the relief of inveterate pain, and not, as may be the case with the unstable type, from the example of others.

The four chief derivatives of opium are morphine, heroin, dionine and codeine. The latter two are far less powerful than the former, and the taking of them never develops into a drug habit. Dionine is about twice as powerful as codeine.

The confirmed opiate addict is generally sallow and emaciated, restless, irritable, depressed, weak-willed and untruthful. Acidosis and constipation are common. Pruritus is often complained of.

In spite of the stringent laws regulating the sale of narcotics the opiate addict manages, by hook or by crook, to get all of the coveted drug he wants. His imperative craving allows nothing to stand between him and its satisfaction. One feels that such persistent effort as these patients display, if employed in the service of some legitimate pursuit, might carry a person of quite ordinary ability a long way.

Since the passing of the stringent Harrison Law by the Federal Government of the United States, a vast clandestine commerce in narcotics has grown up in that country. The small bulk of these drugs renders the evasion of the law comparatively easy, and the country is overrun by an army of pedlars who extort exorbitant prices from their hapless victims.

The Harrison Law, far from bettering the lot of the opiate addict, has actually made it worse, for without diminishing the supply of the drug, it has sent up the price of it by leaps and bounds; and this has had the effect of impoverishing the poorer class of addicts and reducing them to a condition of abject misery and inability to gain an honest livelihood. Whereas previously the addict could get his needful supply by the expenditure of a few cents, now most of his earnings are diverted to this end, and this often leads to his losing his employment and becoming a pauper.

To remedy this evil an institution was opened at Los Angeles with the object of providing opiate addicts with the coveted drug at normal prices and at the same time of helping them to overcome their habit; and during its short career of five months its usefulness was abundantly proved.

The modern addict introduces his drug—morphine or heroin—hypodermically. Some employ the syringe; others a simple eye-dropper (glass tube with gutta-percha top), the point of which is fitted to the injection-needle. When a hollow needle is not available a common practice is to pierce the skin with a stout pin and to insert the point of the dropper into the orifice thus made.

The prick of the needle becomes associated in the patient's mind with the pleasant relief which speedily follows upon it, so that he comes actually to crave for the prick as well as for the effect of the drug. Not only does he crave for the "feel" of the needle, but he is able to recognize the feel of the injected morphine, and he can tell at once if the injection is devoid of the blessed drug. It is more difficult for him to detect its absence if strychnine has been added to the solution, but this drug sometimes gives rise to painful swellings at the site of the injection.

It is because the patient craves for the feel of the needle, and the rapid relief, associated with it, that he does not take kindly to the oral method of administration when this is resorted to during the treatment by gradual withdrawal.

Many addicts do not trouble to sterilize either the syringe, the needle, or the skin, or to keep the powder used for injection clean. Such often do not suffer from cutaneous abscesses, whereas others who are much more cleanly may develop them. Obviously some are much more resistant to infection than others.

When the opiate is suddenly withdrawn the patient experiences symptoms such as the following, and somewhat in the order given: a feeling of apprehension, yawning, sneezing, running of the eyes and nose, cold sweats, nausea, vomiting, purging, tremors, twitchings, and shooting pains, especially in the legs. He sinks into the lowest depths of misery and may actually collapse and die. (It is noteworthy that pronounced physical symptoms do not occur in chronic cocaine poisoning.)

These symptoms increase in severity from thirty-six hours to five days, the average length being from two to three days. Thereafter they gradually subside, though it may be some days before the periodic outbursts of craving and the distressing pains disappear; while to the end of life the chance administration of the drug tends to revive the craving in all its pristine intensity. It is comparatively rare to effect more than temporary cure.

It is useless to attempt to cure the opiate addict unless he is genuinely anxious to be cured. His genuine co-operation is essential to success. To put a patient under lock and key for a term against his will simply means that he will revert to his habit directly he is released.

The personality of the physician called upon to treat a case of morphinism is of immense importance. He must have infinite tact, a fund of common sense, and be prepared to treat each case acording to its merits. He must throw himself with enthusiasm into his task and get the patient to feel that he is his friend and stand-by in the difficult ordeal which is confronting him. Perfect confidence must exist between the two.

It is needless to emphasize the importance of experience on the part of the doctor and, in institutional cases, the nurse in the treatment of these cases, not only because the skilful handling of them can only come with experience, but also because the opiate addict is hypercritical—quick to take the measure of doctor and nurse—and he soon loses confidence in them if he detects the slightest sign of inexperience.

Treatment consists in withdrawing the drug either gradually or abruptly. Abrupt withdrawal necessitates the confinement of the patient in a home or institution of some kind. Treatment in the patient's own home is rarely advisable. Confinement is also desirable in the case of most of the patients treated by the gradual method. Only those of the more stable type, whose general health is fairly good, and who are not associating with other opiate addicts, are suitable for ambulatory treatment.

When this method is adopted the patient is not to be given a prescription for his narcotic. Whatever dose of narcotic is allowed is to be administered by the doctor himself on the occasions of the patient's visits, and the precise quantity which the patient is to take between his visits to the doctor should be doled out to him at each visit. In my experience it is rarely necessary to conceal from the patient his daily allowance. The knowledge of the progress he is making in the direction of diminution tends to stimulate him to fresh endeavor. If necessary, however, it is not difficult to keep the patient in ignorance of his exact daily dose, since the size of the tablets given him is no necessary indication of their strength.

It is of little use attempting the treatment of opiate addicts belonging to the highly neurotic, irresponsible, degenerate, borderland class, or such as have grown grey in the vice.

Whether we decide upon a gradual or a rapid withdrawal of the narcotic, the patient should be put through a prelimin-

ary course of treatment with the twofold object of improving his general condition—which is often desperately bad—and the reduction of the daily dose of narcotic to the minimum quantity consistent with moderate comfort, for it has to be remembered that the patient generally takes an amount considerably in excess of this.

By means of suitable dieting, the relief of acidosis and constipation, the employment of massage and hot baths, the administration of tonics (notably strychnine), bromides, mixed glands, and the like, and by regulating the times (which generally have been indiscriminate) at which the narcotic is given, it may be possible not only to effect a considerable improvement in health, but speedily to reduce the habitual daily amount of narcotic to one-half, if not to one-third, without the occurrence of serious withdrawal symptoms.

Any local disease, especially such as is likely to cause pain —for example, bad teeth or sinus disease—should be treated before the process of complete withdrawal is begun, inasmuch as pains are apt to be lighted up in weak spots when the narcotic is greatly reduced or entirely withheld, and this may necessitate a return to it at a critical period of the treatment.

Gradual Withdrawal.—Let us assume that the preliminary treatment just outlined has been carried out, and that the patient is taking the minimum amount of the narcotic capable of allaying the insistent craving. The treatment consists in fortifying the patient's general health and treating symptoms as they arise, while steadily reducing the daily dose of the accustomed narcotic and substituting for it an equivalent of dionine or codeine. After a time an attempt is cautiously made to substitute the oral for the hypodermic method of medication, gradually increasing the proportion of the oral dose.

It is not possible to tell beforehand how rapidly the reduction can be effected. It sometimes happens that a patient who has been taking large daily doses can be reduced more rapidly than one who has been taking quite moderate doses. The greatest difficulty is experienced over the reduction of the last daily grain. Even when the patient has for some days been taking only a fraction of a grain each day he may dread the further reduction of this small amount.

If dionine or codeine is added to the injection mixture in gradually increasing doses, while the morphine (or heroin) is being decreased, by the time the latter is omitted altogether the patient will not be able to detect its absence by the "feel" of the needle.

When the hypodermic method is entirely abandoned for the oral method it may be advisable temporarily to increase the daily allowance of narcotic.

It is better to give the daily quantity in a few doses administered at long intervals, rather than in small doses at short intervals. One dose should be reserved for the night to promote sleep, and one for the morning—the time above all others when the patient craves for the drug: without it he may be incapable of getting up.

Acidosis and constipation are best combated by bicarbonate of soda (Z½-Zi) and cascara. Strychnine given in large doses, (habitual addicts are remarkably tolerant of drugs) helps to stimulate flagging peristalsis, and it is a useful tonic apart from this. Bromides help to quiet nervousness. For the relief of the distressing pains mygrone (5 grs.) every three hours is useful.

One of the most troublesome symptoms calling for treatment is sleeplessness. Among the most effective hypnotics are the following:

Dial ciba, 3 grains dissolved in hot water, has a rapid effect, but not so prolonged as sulphonal. May be repeated often, with no apparent ill effect.

Medinal, 5 grains dissolved in water, repeated in an hour if necessary. Acts very similarly to the above. Five grains dissolved in thirty drops of hot water may be given hypodermically and, owing to the psychic effect produced by the needle, is often useful at the end of the treatment.

Veronal and its soluble salt veronal sodium. The latter is said to be identical with medinal. Veronal is practically insoluble.

Sulphonal, 15-20 grains. Though slow in action, its effect is prolonged. Hence it may with advantage be given with dial ciba (3 grains) or with a hypodermic injection of medinal. The prolonged sleep thus induced annuls all craving for the time being.

Luminal sodium, 2-3 grains. Is very soluble and may be given hypodermically.

Paraldehyde sometimes proves of service when other drugs have failed.

Chloral and chloretone (5 grains in capsules) may also be of use. The latter is helpful in allaying the nausea and vomiting which may be troublesome at the beginning of treatment.

Five grains each of chloral and antipyrin, in capsules (the mixture results in liquefaction) is a useful medicament for

controlling the leg pains which are often troublesome after the withdrawal of the hypnotic.

Rapid Withdrawal.—This method necessitates confinement. In the milder cases rapid withdrawal may be effected without recourse to hyoscine. We will suppose the daily allowance of the drug to have been reduced to one grain of morphine. The patient is given a warm bath at bed-time, followed by a brisk laxative and the usual dose of morphine. A saline purge is administered in the morning and half-an-hour later 20 grains of sodium bromide with 15 grains of sulphonal. No further morphine is given.

Directly urgent withdrawal symptoms appear the patient is immersed in a hot bath and a bag of ice applied to the head, or he may be given a hot pack, followed, after slowly cooling down, by salt massage. This treatment is repeated, if necessary, several times during the twenty-four hours, the patient being encouraged meanwhile to drink as much hot water as possible, and to take an abundance of nutritious food. Bromides and hypnotics are administered according to circumstances. Unsteadiness of the heart may be relieved by hypodermic injections of digitalis.

This active treatment is continued for 48-60 hours, but hypnotics and bromides need to be given some days longer as well as drugs for the relief of leg pains.

The craving for the customary narcotic may be relieved by the administration of dionine and codeine, preferably the former. If these drugs alone are ineffective a small dose of heroin may be given in addition.

Rapid Withdrawal with the Help of Hyoscine.—This method consists in the production of mild hyoscine delirium (twilight sleep) for 36-48 hours, and the administration of pilocarpine to promote elimination.

The patient, after his preliminary course, is given, say, twenty 1/100 grain doses of hyoscine at two hours' intervals and ten 1/20 grain doses of pilocarpine at four hours' intervals. The first dose of the drugs is administered at 8.30 a.m. In exceptional cases it may be advisable to give a few injections of heroin (one-sixth grain) on the first day.

Mild hyoscine intoxication may continue for some days after the last dose of the drug. During this time there is no craving, but withdrawal pains are apt to supervene and the patient needs to be kept under treatment for some time longer.

Bromide of sodium (25-30 grains) may be needful to allay nervousness, hypnotics to promote sleep, and mygrone (5 grains) to relieve the painful limbs.—*The Medical Press and Circular.*

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Editorial

Health of the British Navy

In the health of the British Navy the Canadian medical profession takes both a personal and general interest. It is useful to know how those who live in the modern ships of war maintain their health, and how this compares with health in civil life. Of course, naval men are selected physical specimens of the race, but, on the other hand, they undergo vicissitudes of climate and other injurious conditions which are not met by those living ashore. The statistical report of the health of the navy for the year 1915 has just been published; a war-time report, by the way, which makes comparison with vital statistics of civil life yet more difficult. The report shows that the average strength of the total force was 236,500 in 1915. The total number of cases of disease and injury recorded was 146,805, giving a ratio of 620.73 per 1,000, a decrease of 5.72 compared with the average ratio for the previous five years. Very considerable reductions are apparent under the various categories of venereal disease, while Mediterranean Fever, for many years a scourge of the Navy, was reduced to

twenty-seven cases. The average number of men on the sick list daily, suffering from venereal disease, was 91.68, a ratio of 2.94 per 1,000. There were 210 cases of insanity during the year under review, giving a ratio of .88 per 1,000 of strength, as compared with an average ratio of .62 for the years 1910-1914. Cerebro-spinal fever accounted for 115 cases; enteric for 369; malaria for 1,607; and influenza for 6,255 cases, giving a case ratio per 1,000 of strength of 26.44, as compared with 12.44, the average ratio for influenza for the previous five years.

The report seems to show that life aboard war vessels is healthy, and it will be observed that had it not been for influenza the figures for the British Navy during 1915 would have been still more favourable.

Prevention and Treatment of Shell-Shock

The etiology of shell-shock has somewhat mystified those who have come into contact with cases of it, and the recent publication of the report of the British War Office Committee of Inquiry into shell-shock is a matter of considerable interest to the profession in Canada and in Great Britain. Within the limits of a brief editorial the subject can only be scanned. The Committee take the view that many causes go towards rendering an individual peculiarly susceptible to shell-shock while, of course, there are those who are inherently more predisposed by far to the condition than others. Fatigue, cold, sleeplessness, chronic infection and defective family history are obviously determinants of nervous instability and these facts are pointed out in the report. But that the awful stimulus of high-explosive bombardments over prolonged periods will break down human endurance is patent to all. No mention is made in the report of any specific infection which might sensitize its victims to all external stimuli, although this has been suggested. Indeed evidence is not lacking that there are certain specific and definite poisons which have such an effect. It seems that this side of the subject requires further investigation. It is time that the Committee class together a number of infections as possible or even probable predisposing agents. These are classed with cold, with fatigue, with sleeplessness, with privation. The report recommends means of prevention in keeping with the opinions of the Committee as to the causation of shell-shock. Among these are the study of character, so far as it is applicable to military life, by military officers with a view to teaching man-mastership, and it is further recommended that

special instruction should be given to Royal Army Medical Corps officers in psycho-neurosis and psychoses as they occur in war, and that selected officers should be encouraged to specialize in the study of these disorders. There is no space to consider this valuable report in detail as it deserves to be considered. It should be read by all interested in the subject.

First Aid to the Injured

On Saturday, August 12th, the annual inspection of the Ambulance (male) and Nursing (female) Division of the St. John Ambulance Brigade in Toronto and Hamilton took place in the grounds of Casa Loma, the home of the Commissioner of the Brigade in Canada, Sir. H. M. Pellatt, C.V.O., D.C.L. This annual inspection is required by the regulations of the Brigade to ensure good standing for the coming year, and maintain the efficiency status demanded of each Division of the Brigade annually.

The inspection is usually held locally and separately, but on this occasion for the first time a combined inspection was held of the Divisions from Hamilton and Toronto. The Commissioner was very thorough in his examination and inspection, which included ceremonial, a march past the saluting point, and first-aid methods of dressing and transporting the injured. His Staff included the Assistant Commissioner for Canada, C. J. Copp, M.D., and Mr. Sam Holland, of the Workmen's Compensation Board of Ontario, late Divisional Superintendent Westinghouse Division of the Brigade in Hamilton.

Nothing could exceed the efficiency and usefulness of this lay organization, meant to bridge over the gap between accident or sudden sickness, poisoning, drowning, or other such mishap, and the arrival of the trained nurse and the doctor. The scope of the training, as laid down in its text books on such subjects as First Aid and Home Nursing, is fixed within the limits possible for persons of both sexes who have an ordinary school education, and is severely practical. Essentials only are taught such as may save life pending the arrival, as already stated, of more skilled assistance. The manuals in use and the teaching given are completely standardized, the result of generations of experience both in Great Britain, where the Headquarters of the Order of St. John are, at St. John's Gate, London, and in all parts of the Empire. They are models of compression and relevancy, and, in the hands of trained

medical officers and nursing superintendents as teachers, produce classes well capable of discharging the simple duties they undertake.

Before the parade was dismissed the goodwill of the Divisions to the Assistant Commissioner was well shown in the presentation to him by the Corps Superintendent, Mr. G. J. Debney, of a handsome illuminated manuscript volume containing the names of every member of the Brigade who had served overseas, both men and women, in the Great War. Mrs. Copp also was presented by the Nursing Divisions with a fine bouquet of roses.

The General Practitioner and Obstetrics

We publish in this issue a portion of an address delivered by Dr. S. P. Ford, at Peterborough, before the County Medical Society.

Although Dr. Ford has been engaged in active practice in Norwood, a little village almost in the backwoods of Eastern Ontario, for fifty years, he is quite up-to-date in matters pertaining to the works of the general practitioner.

In addition to what we publish in his paper he adds that during the first twenty-five years of practice he used ergot, but he was always afraid of it and only used it just before delivery to guard against post-partem hemorrhage. He has had little or no experience with the use of quinine.

To his former paper he adds the following remarks as to pituitrin, which he always carries in his bag, and has done so for years. At first he used a full c.c. and got as a result sometimes most alarming uterine contractions, for which he was compelled to resort to deep surgical anæsthesia. He soon reduced the dose to one-half c.c. and seldom has to repeat. He is careful to avoid it in primapari and in cases of face, arm, shoulder and breech presentations, and when the os is not either fully dilated or easily dilated. He likes, however, to use it when possible, partly because his patients are more willing to submit to the hyperdermic injection than to the forceps operation. He also adds the following rather strong language. In his opinion "a man would be either a fool or a criminal to use pituitrin in any of the cases before-mentioned, or until he is absolutely sure that the passage is clear for a safe delivery."

High Pressure and Angina

We fear that many errors have arisen and now exist regarding the causes of angina pectoris. It is almost regarded as a truism that angina and high blood pressure bear to each other the relations of effect and cause.

Mr. Walter Verdon has recently published a work on Angina Pectoris, which contains a lot of information conveyed in a most interesting way. He says persistent high pressure, though it throws extra work upon the heart, is not a necessary factor in the pathology of angina pectoris. Frequently it is not even present. On the other hand, many of those in whom high pressure is persistently present do not suffer from angina.

Mr. Verdon holds that the primary source of the pain in angina is flatulent distention, notably of the cardiac end of the stomach and the adjoining portion of the œsophagus. It is assumed that gaseous distention excites the gastro-œsophageal musculature to contract and thus provokes the specific sensation. The radiograph has shown that the stomach, in flatulent subjects, far from being dilated, is frequently contracted, showing that the presence of gas tends to promote spasm, and Verdon believes that during the anginous seizure the muscle is thrown into spasm and the pain produced by it is conveyed by the sensory nerves to certain parts of the body, but especially the thoracic wall and the upper limbs. There is no evidence that the pain is due to exhaustion or to cramp of heart muscle. During a seizure the pulse is generally regular. Mackenzie says that in a vast majority of cases there is no change either in heart or arteries.

The author contends that the proper treatment is one in which diet occupies a prominent place, and the sorts of food he advises do not correspond with those generally recommended at present. The main thing is to give food of a non-flatulent kind. A judicious employment of aperients is called for. Ten grains of iodide of potassium, three times a day, is recommended, and also nitro-glycerine in order to induce relaxation of gastro-œsophageal spasm. Hot applications to the stomach and thorax tend to relieve the pain. Deflation of the stomach by means of the œsophageal tube often affords relief. Such deflation is not always easily accomplished, and frequently patients will refuse to submit to it.

These comments are largely founded on an article in the *Medical Press and Circular,* May 3, 1922.

Professional Secrecy

The discussion as to secrecy in the various professions—church, medicine and law—and the rights and duties of the recipients have been numerous and diversified for some time. In former times the doctrine of our strongest medical societies, including the B.M.A., was that all information from patient to doctor must be considered as absolutely privileged and that no doctor should be compelled by a court of law to divulge it. *The Manchester Guardian,* July 28th, in commenting on the subject, says: "Here you get the direct collision between the collective power of the country and the authority of a powerful trade union."

The question was very seriously considered at the recent meeting of the B.M.A., held at Glasgow. The desire of the majority was to make their duty as doctors and their duty as citizens fairly square with each other. Physicians owe duties to the state as well as to their patients. "If they attempt to defy the authorities, they may be driven to cover up crimes," that is, to do something unjust. They may stand on their "inalienable rights" long enough to do wrong—perhaps, to become silly.

We have a tremendous respect for those who desire to keep inviolate the secrets of their patients. Fortunately, in case of doubt, the physician in the witness-box can always appeal to the judge. From all points of view, legal, moral, and otherwise, he will do well to accept the decision of the one person in the world best qualified to give sound advice.

Voluntary Hospitals in Great Britain

No question in Great Britain is causing more anxious thought than the situation of the voluntary hospitals. Our London correspondent, who is in a good position to know, has told us much about the matter during the last year, especially in our February issue, in which his letter included the statement that the aggregate deficit in the maintenance account for the London hospitals alone amounted to nearly $2,000,000 in 1921.

The *Manchester Guardian,* speaking from the layman's point of view, says the Council of the B.M.A. evidently feels that the drift of the day is away from the voluntary systems and towards state or other official control. The *Guardian* does not quite like "the proposed abolitions of so tall and ancient an edifice of human kindness and self-denial as each large volun-

tary hospital has been, and the substitution of some new target for furious *anti-waste* fusillades in the supposed interest of tax-payer or rate-payer."

It appeared to the *Guardian* that at one of the sessions the Association "had in mind the future position of hospital medical staffs under state control," but some writers in the lay press doubt whether great changes would necessarily occur in the staffing of hospitals coming under public control. It is "possible to imagine all hospital posts going to whole-time salaried men with a great resulting dislocation of the present basis of consulting practice." Out of the present clouds in Great Britain important definite opinions may be formed and expressed before or during the next meeting of the Association.

Knighthood Conferred on Mr. Barker

There has been considerable discussion in Great Britain for some time regarding the work of Mr. H. A. Barker, who is described as "a specialist in manipulative surgery who placed his manual dexterity unreservedly at the disposal of all wounded ex-service men." He was recognized for many years as the leading bone-setter. It is well known that the bone-setters of England have taken quite a prominent part in surgical practice for a long term of years.

They are not, as a rule, educated men, but there are exceptions, and some of them, in addition to a good general education, have acquired a good knowledge of anatomy, with sometimes physiology.

The most distinguished of these in late years has been Mr. H. A. Barker, now fifty-four years of age. After receiving a good preliminary education, he commenced the study of law. As he disliked law, his father allowed him to become a pupil of his uncle, Mr. Atkinson, who was for a long time the leading bone-setter, where he is said to have studied for some time Gray's Anatomy and soon became an expert in the bone-setter's arts.

We are told he enjoyed an extensive and fashionable practice, and for a long time his doings gave rise to considerable discussion. As he had no qualification of any sort to practise, certain members of the profession objected strongly to his being allowed to do any surgical work. It is stated that a physician had his name removed from the register for administering anæsthetics to one of Mr. Barker's patients. As we understand the circumstances, we cannot consider this a wise action.

In an article by George Godwin, published in that well-known and popular journal, *The Review of Reviews,* we are told that Mr. Barker repeatedly asked to be allowed to demonstrate his methods before a committee of surgeons. For various reasons we should have liked such an investigation, but there are always difficulties, and, as a rule, conferences between the regular profession and the outside unlicensed have not been productive of the slightest good. However, a refusal by the regulars to confer with the irregulars is generally unpopular.

Mr. Godwin tells us "Medical Trade Unionism would seem to have set its face against progress. It has been blind to the torch bearers. It has denied the worker without its ranks; it has persecuted the prophets."

Mr. Godwin further adds: "As the years went by the cures effected by Barker became so numerous that those who stood entrenched behind the ramparts. . . .began to take thought how they could destroy him. . . . forgotten were the lessons of the past; the debt of medicine to those laymen who first introduced the classic Cæsarian section, anæsthetics and other operations," (perhaps some of our readers have not heard of this before). As Mr. Godwin goes on he becomes still more illuminative. He tells us, "Some idea of the venom of the profession towards him may be gathered from the following story: A lady, much against the will of her orthodox adviser, came to Barker for the operation for displaced cartilage of the knee. The operation was entirely successful, and the patient raised the ire of her medical adviser by twitting him upon his failure to cope with the trouble. At his request she exposed the knee for examination. The doctor then assured her that the quack had now made the matter a hundred times worse as she would soon find out; but the lady, suspecting the biased attitude of the doctor towards the unqualified practitioner, had exposed her other and entirely normal member."

This is rather a good story, but so old and so frequently repeated that its freshness is gone and at the same time its usefulness in learned discussions on surgical procedures is considerably lessened.

However, as the hero has received his reward and has thus been "vindicated," we hope that the intelligent author of the article will soon recover his equilibrium.

News Items

The Academy of Medicine, Toronto

The provisional programme for the Academy promises that the meetings during the coming session will be full of interest. For the first Stated Meeting, October 3rd, in addition to the Inaugural Address of the President, Dr. W. H. Harris, Dr. Reginald Morton, of London, England, will address the Academy on recent work in Radiology. Mr. Andrew Fullerton, the distinguished Belfast surgeon, will probably address a Special Meeting of the Academy about the middle of October. Dean Lewis, of Chicago, will be another visitor. The Sectional Programmes indicate that matters of particular interest will be up for discussion.

Miss Poole, who has been engaged as Librarian, assumed her duties September 1st and already considerable reorganization of the library has been effected.

The Canadian Institute for the Blind

The Canadian Institute for the Blind has opened, at Pearson Hall, 186 Beverley Street, a department for the administration of massage treatment and other forms of physical therapeutics, under the supervision of Mr. D. J. McDougall.

Treatment will be given at these quarters, or masseurs will be sent to patients on prescription of a medical practitioner.

Radium at Quebec

It was reported early in September that the Province of Quebec had purchased, from the United States Radium Corporation, one gram of radium, valued at $100,000.00 for the treatment of cancer.

Nurses' Memorial

The Dominion Government has given the Canadian Association of Nurses permission to place a War Memorial in the Hall of Fame, Ottawa. The nurses in all parts of the Dominion are participating in the campaign to raise the sum of money required, which will be about $70,000.

Public Health Nursing

It was announced, September 11th, by the Red Cross Society of Ontario, that scholarships of three hundred and fifty dollars each were awarded to four graduate nurses in the course in Public Health Nursing at the University of Toronto.

The Public Health Nursing course in the University of Toronto has entered upon its third year. The expense of carrying it on is borne by the Ontario division of the Canadian Red Cross. The names of the successful nurses are as follows: Miss Maud Coatsworth, Toronto, a graduate of Toronto General Hospital, who was overseas during the war.

Miss Helen Bruce Gardiner, Niagara Falls, Ontario, a graduate of St. Luke's Hospital, New York, who was also overseas in the same unit with Miss Coatsworth.

Miss Mina Macmillan, Maxville, Ontario, graduate of the Royal Victoria Hospital, Montreal, who was overseas with the Red Cross and Khaki League. For the past two years she has been doing work in bacteriology in the University of Toronto.

Miss Marion Sydney Proctor, a graduate of New York Hospital, who served as staff nurse at No. 22 General Hospital, B.E.F., France.

The Illness of Lord Northcliffe

According to the doctors' official announcement, Lord Northcliffe suffered from infective or ulcerative endocarditis. It is probable that this commenced insidiously months ago—perhaps during his recent world tour. The trouble made slow progress until about two months before his death. Then fever set in, accompanied by progressive weakness and "embarrassed" heart. The patient's whole system was poisoned by the germ which was circulating in his blood. His condition steadily became worse.

The Government of France and Canada

The Government of France has offered a number of valuable scholarships to Canadian Universities, including one to the University of Toronto. The winner of the University of Toronto Scholarship will spend the next academic year in France. The scholarship is of the value of 6,000 francs, with an additional 1,000 for travelling expenses.

We are told that similar scholarships are being awarded to the Universities of McGill, Laval and Ottawa.

Chief Coroner for Toronto

After the death of Arthur Jukes Johnston, Dr. George W. Graham was the Acting Chief Coroner of Toronto. The appointment was made permanent August 8th.

There was for a time considerable difference of opinion regarding the advisability of the appointment of such an officer, but we think the majority are rather favorably disposed towards the system.

We are glad now to be able to say that Dr. Graham's work, before his permanent appointment, gave complete satisfaction.

Dr. Graham is an earnest faithful officer, full of energy and endowed with good judgment. In his routine work he meets many difficult situations, which he generally handles with rare discretion. There seems to be a general consensus of opinion now that he is the right man in a somewhat difficult place.

Cancer Week

The American association working for the prevention and cure of cancer has decided on a campaign against cancer during one week in November. Canada is making arrangements to co-operate. Provincial chairmen have been appointed as follows: Dr. F. H. Newburn, Calgary, for Alberta; Dr. A. Primrose, Toronto, for Ontario; Dr. John Stuart, Halifax, for Nova Scotia; Dr. R. J. Blanshard, Winnipeg, for Manitoba; Dr. Gillies, Vancouver, for British Columbia; Dr. Fred J. Tees, Montreal, for Quebec; Dr. Murray MacLaurin, St. John, for New Brunswick; Dr. S. Jenkins, Charlottetown, for Prince Edward Island; Dr. H. E. Munroe, Saskatoon, for Saskatchewan. The Cancer Week will commence November 12th.

The third Conference of the International Union against Tuberculosis was held in Brussels on July 11th to 15th, 1922, under the Presidency of Sir Robert Philip, of Edinburgh. Delegates were present from practically all of the great nations. The most important social function was the reception to the delegates held by the King of the Belgians at his country palace. Here each of the accredited delegates was presented to His Majesty, who evinced a keen interest in the work against tuberculosis in the various countries. The work of the conference consisted of executive meetings of the Council, of which Canada is now an accredited member, and the open sessions, where papers were read by leaders in the

movement. Following these, visits were made to various dispensaries and sanatoria in different parts of Belgium.

The three main questions considered were, (1) Prophylaxis of Tuberculosis in Infancy and Childhood; (2) Prophylaxis in the families of dispensary patients; (3) Work of the tuberculous during and after the cure.

Personals

Dr. Ernest Frederick, formerly of the staff of the Mayo Clinic, and who has spent the last winter in California, has returned to Toronto and commenced practice at 64 Bloor Street East.

Dr. F. W. E. Wilson, of Niagara Falls, who, in addition to his multitudinous duties as a general surgeon, is president of the local Rotary Club of his city, has been made a Fellow of the American College of Surgeons.

Dr. Harvey Cushing, Professor of Surgery in Harvard University, was invited by the authorities of St. Bartholomew's Hospital, London, England, to act as the director of the Surgical Unit in that institution. He accepted the invitation and is now actively engaged as head of the department.

Dr. Cushing is held in very high esteem by the professsion of North America, and there is a general feeling that his work will be eminently satisfactory in all respects.

Dr. C. K. Clarke, of Toronto, has been asked to deliver the Maudsley lecture on Psychology at the Congress of the British Medico-Psychological Association in London, England, in 1923.

Dr. Clarke's experience has been considerable as he was Superintendent at the Rockwood Hospital for Insane at Kingston and then in Toronto. During the last four and a half years he has been the Medical Director of the Canadian National Committee for Mental Hygiene, and in his work in connection therewith he has visited every province in the Dominion.

Obituaries

Amos Frankfort Rogers, M.D.

Dr. A. F. Rogers, of Ottawa, died September 3rd, aged sixty-eight. He graduated, M.D., from McGill University in 1874. After doing post-graduate work in London and Edinburgh he commenced practice in Ottawa. He became prominent in medical affairs and represented the Ottawa district in the Ontario Medical Council for several years, being Vice-President in 1895 and President in 1896.

About the year 1900 he surprised his friends by entering a new field. He manufactured what is known as the Fruitative pill, the virtues of which he advertised in the lay papers. He definitely retired from private practice in 1904, when he placed his pill business in the hands of a limited company.

J. C. Greenleese, M.D.

Dr. J. C. Greenleese, aged 40, disappeared after attending a local theatre, August 8th. His body was found floating in the Rideau Canal, August 12th. No further explanation has been given as to the cause of his death.

Book Reviews

The Thyroid Gland

The Thyroid Gland, Clinics of George W. Crile, and Associates. Edited by Amy F. Rowland. With 106 Illustrations. Philadelphia and London: W. B. Saunders Company, 1922. The J. F. Hartz Company, Limited, Toronto, sole Canadian Agents. Price $5.50.

This is the first of a series of volumes to be issued from the "Cleveland Clinic." It contains contributions on various aspects of the thyroid gland from sixteen associates of the clinic and gives on the whole, in a concise and readable form, the views of the Crile School on the Thyroid Problem. The chapters on "Diseases and Pathology of the Thyroid

Gland," by Allen Graham, "Differential Diagnosis of Diseases of the Thyroid Gland," by John Phillips, and "The Prevention of Simple Goitre in Man," by O. P. Kimball, are particularly excellent. The surgical aspect and operative technique is, of course, covered very fully, but we think not sufficient credit is given to the treatment of Hyperthyroidism by Radium and Radiotherapy.

The volume is one which should be received well by the profession and certainly does credit to the authors.

Correspondence

London Letter

(*From our own Correspondent*).

The meeting of the British Medical Association in Glasgow is just over and from all aspects has been an unqualified success. One of its features was the discussion of the hospital question. At the Representative Meeting which took place on July 22, Mr. Bishop Harman, Chairman of the Hospitals Committee, stated the hospital policy of the British Medical Association. There were 195 motions and amendments dealing with hospital policy on the agenda and the representative body devoted the whole day to their consideration. The discussion was of an extremely lively nature, and disclosed the fact that there were sharp cleavages of opinion, more particularly on the outstanding question as to whether hospital doctors should be paid a proportion of the money charged by hospitals in respect of insured or better class patients. With one exception, which touched the latter question, the principal motions submitted by the council were carried. They declared amongst other statements, that "The Association recognizes a dual policy as regards the voluntary hospitals: (a) That the purely charitable side should be continued, wherein the whole cost of the main entrance of indigent patients is met by the gratuitous contributions received by the hospital and on whose behalf the services of the honorary medical staffs are given gratuitously; (b) that other patients, who are not indigent, may be received for treatment at voluntary hospitals when adequate treatment cannot be obtained elsewhere, and that for them, payment should be received by the hospitals either from the patients themselves, or, on their behalf, from the authority or body referring them to the hospital, and that, on account

of their treatment, some method of remuneration of the honorary medical staff should be arranged." The meeting was somewhat stormy and an amendment was brought forward to the effect that it would be unwise to adopt the policy suggested, as it would alter the present status of the medical staff of a voluntary hospital in a manner detrimental to the interest of the profession. Dr. H. S. Soultar, one of the supporters of the amendment, went so far as to say that the voluntary system, in the old sense, was absolutely dead and added why should they be run entirely on voluntary lines for "the poor are no longer with us." The conflict of opinion was so marked with regard to the payment of hospital staffs that Mr. Harman withdrew the original motion, dealing with the formation of hospital staff funds, and put a new proposal in its place to the effect that "the council be instructed to reconsider the terms of the present policy of the association and report what, if any, modification might be desirable to meet any possible inequities that might arise from its operation." The conference finally passed the following declaration, recommended by the council: "In view of the tendency of the State, through local and central authorities, to require the services of the voluntary hospitals, it should be provided, in any arrangement for such services, the State should pay a full cost to the hospital, so that no portion thereof shall be charged to the charitable funds of the hospital, and that the payment so made shall include an amount for the remuneration of the honorary medical staff of the hospital." It was to be gathered from the discussions that the majority of medical men in the country are in favor of the retention of the voluntary system. They fear that payment of hospital staffs would be the thin "end of the wedge" leading to state or municipal control. It is a difficult problem to successfully solve and the solution is not yet in sight. Sir Arbuthnot Lane, who, perhaps, has more original ideas than any surgeon of his generation, opened a discussion on the treatment of non-malignant affections of the colon. As is well known, he attributes a great many diseases and conditions of ill-health to chronic intestinal stasis according to the views largely, if not wholly, brought about by the formation of evolutionary bands in the colon and thereabouts, which in their turn form "kinks" and interfere with the drainage system of the body. Of these "kinks" the ileal "kink," named in America after Lane, is the most obstructive and prejudicial to health. Of course, the great British surgeon recommends for the relief or cure of this condition operative measures, as a rule, short circuit-

ing, of which operation he was the pioneer in Great Britain and its most brilliant exponent. However, Lane does not advocate the use of the knife until medical methods have been given a fair trial. Above all, he puts his trust in means of prevention. He draws attention to the experience of Colonel McCarrison in India, who for nine years carried on a large practice in the Himalayas. During this time he never saw one case of asthenic dyspepsia, of gastric or duodenal ulcer, of appendicitis, of mucous colitis, or of cancer, all evidences of chronic intestinal stasis in their normal sequence. Moreover, Lane has obtained precisely similar evidence from other very experienced medical men who have been engaged in practice for many years among the primitive races. It is to be assumed that Lane ascribes the advent of chronic intestinal stasis to faulty diet and to an unhealthy manner of living generally. In fact, he believes it to be fundamentally a disease of civilization, which may be prevented by leading a rational life. He is of the opinion that it is clearly our duty not so much to devise new operations as to attempt to prevent the disease for which so many operations are done; in short, to employ every effort to prevent intestinal stasis, but when it is present in an aggravated form to have recourse to surgical interference.

"Professional Secrets," a question of outstanding interest to the general public, was discussed at the first session of the meeting of representatives of the British Medical Association which opened in Glasgow on July 21st last. The debate was keen and the views expressed were conflicting. Some held that a medical man in the witness-box, who refused to disclose secrets revealed to him by patients, should be upheld through "thick and thin" by the Association. Dr. R. Langdon Brown, who introduced the subject as Chairman of the Central Ethical Committee, said that to hold out this prospect would, in the opinion of the council, be to accept a wider responsibility than the Association would, in present circumstances, be justified in assuming. The most the Association could be fairly expected to do was to support a member who took up an attitude which the Association, after due consideration, was of the opinion was wise, and in the best interests of the public and the profession. The council felt that to put into the hands of an individual member the power to command the full support of all the forces of the Association was much more than could properly and safely be done. The policy now recommended represented the utmost limit to which the Association ought to pledge itself in advance, before know-

ing the actual circumstances of a particular case. It reserved to the council the right to decide whether refusal to divulge information was justified.

Dr. McGregor Robertson, of Glasgow, expressed the opposing views when he said that either the Association had to maintain that the medical profession had a privilege similar to the privilege of solicitors and clergymen, or it could do nothing. He protested that the solution proposed by the council was an evasion of a clear, well-defined issue. What would happen if a medical man in the witness-box declined to answer a question on the ground of confidence placed in him in the consulting-room? He might be committed for contempt of court and held in prison until he was considered to have "purged his offence." The council on the Central Ethical Committee would then be called upon to consider his case. Three months might elapse before it was decided to "support" the man. In the meantime he was languishing in prison. Dr. Robertson quoted a case in which a court had held that a clergyman was not required to divulge information obtained in confidential communication from the penitent. The same relationship should be established between the medical man and the patient. However, despite opposition last year's resolution, which supported the doctor in the strongest possible manner, was rescinded, and this year's recommendation adopted.

The address of the President of the Association, Sir William Macewen, of Glasgow, was a masterly contribution to the literature of brain surgery. Sir William Macewen is one of the pioneers of brain surgery, and the greatest living exponent of the surgery of the brain. His address showed that while the greatest care must be taken when operating on the brain, provided all due precautions are taken, great relief can often be given by brain operations. In no realm of surgery has greater progress been made than in that of brain surgery.

The etiology of rickets is a subject which has been earnestly discussed in different parts of the world during recent years. At a combined meeting of the Section of Physiology and Diseases of Children, Dr. Leonard Findlay, of Glasgow, read a paper on "The Etiology of Rickets." Dr. Findlay and Professor Noel Paton, of Glasgow, are the chief propagators of the view that rickets is mainly a disease of environment. They contend that rickets is not a so-called deficiency disease, that is, an affection due to the lack or deficiency of certain elements of the diet. Dr. Findlay, in his paper, attempted to

drive home the view that, at least, rickets in that respect was very different in its behaviour from the known deficiency diseases, scurvy and beri-beri. It would rather appear that somehow or other the etiology of rickets was associated with confinement. Whether that was due to want of fresh air, lack of exercise, or the absence of sun's rays, or because confinement, overcrowding, and bad hygiene in general, favor the development of some virus, it was impossible at present to say. Opinions vary widely on the matter, but it seems that the common sense attitude on the subject is that of Dr. Eric Pritchard and others that rickets is a condition produced by faulty diet and bad hygiene, and is not owing to one cause only. It may be that Dr. Findlay is right in attributing rickets to an infection, but that diet plays an important part in its causation, appears to be obvious. There can be no doubt that Dr. Findlay is correct in saying that the subject called for more research work than it had hitherto received. The debate on alcohol was highly instructive, although it covered ground which has been already well trodden. Dr. John I. MacCurdy, of Cornell University Medical College, New York, referring to alcohol from the point of view of heredity, said that the experience of any physician showed that the alcoholic was not fecund nor did his progeny thrive. Can we, regarding the matter dispassionately, avoid this question, "Is this good or bad?" Answering this, the speaker said that there can be no doubt it is bad for society in any generation. The production of defective, badly-nurtured and reared offspring inevitably throws a burden on society. But there is the race to consider. Eugenics exist in name only. If the true alcoholic be a psycopath, is it well to let him reproduce? Assuredly not. What we ought to do is actively to prevent it, which sentimentality forbids. Alcohol eliminates the unfit. If we fail to treat the race with intelligent care, should we prevent Nature from working her way, albeit it is blind, slow and unkind? Sir Frederick Mott, Pathologist to the London County Councils Asylums, discussing alcohol in its relation to problems of mental disorders, said that rather than being a cause of insanity, it was a revealing cause of incipient insanity. For that reason it could be described as a "weed killer" in the sense that it brought that class of case into the asylums earlier. There had been recently a reduced number of "drunks" coming into the hospitals, and he believed the decrease in drunkenness was, to some extent, due to the fact that there were so many excellent cafes and tea-rooms. Professor A. Louise McIlroy, Director of the Unit of Obstetrics

and Gynecology at the Royal Free Hospital, London, declared that it was utterly impossible for an alcoholic woman to have a healthy child.

Preceding the address, the President presented the gold medal of merit and illuminated address of the Association to Arthur Martin Leake, V.C., F.R.C.S., for his most conspicuous bravery and devotion to duty throughout the War. Having been awarded the Victoria Cross during the Boer War he added to this distinction by gaining a bar, the first time this distinction had ever been given. Sir Clifford Allbutt, P.C., K.C.B., M.D., F.R.S., was presented the gold medal and address for his long and distinguished services to the profession and the Association, and in commemoration of his five years' presidency of the Association at the time of the Great War, 1916-21. The Stewart Prize was then handed to Dr. John C. McVail, LL.D., Glasg., M.D., F.R., F.P.S., D.P.H., in recognition of distinguished service to the community in preventive medicine. The prize consisted of an illuminated certificate and a cheque for £30. The steps taken to provide amusement for the visitors were many and successful and, as said before, the meeting passed off without a hitch.

Selections

Malignant Granuloma (Ueber das maligne Granuloma.) *Muenchen. med. Wchnschr.* By M. Matthes.

Granulomata belong, with the lymphosarcomata and the true pseudo-leukæmias, to that group of diseases which were formerly designated collectively by the term "pseudo-leukæmia" and included all conditions showing multiple glandular swellings and a tumor of the spleen without any considerable increase of the white blood corpuscles.

The malignant granuloma (Hodgkin's disease), forms a disease picture which frequently leads to diagnostic difficulties. Pathologically it is characterized by a proliferation which originates from the connective tissue of the lymph glands and contains abundant plasma cells, Sternberg's giant cells with centrally situated nuclei, and frequently a large number of eosinophile cells.

According to the investigations of Much and Lichtenstein, a relationship between malignant granuloma and tuberculosis is very probable. The glandular swellings are movable and non-adherent as in aleukæmic lymphadenitis, and the splenic tumor is usually insignificant. The blood picture shows frequently an eosinophilia and a moderately marked leucocytosis. The febrile course may be quite characteristic, irregular periods of fever alternating with afebrile periods. During the fever the patient feels very ill, the glands become more swollen, and the leucocytosis is more marked.

Prurigo and eczematous skin rashes may be observed as early symptoms. The urobilinogen and diazo reactions are often positive. The proliferation of the lymphatic tissue in the mediastinal space may cause diagnostic difficulties if no other visible glandular swellings are present. In such cases the roentgenogram is very valuable. If the disease is manifested only by periods of fever and splenic enlargement, the differentiation from typhoid fever is difficult. A negative tuberculin test is of importance. Pains in the bones resemble those of leukæmia and pernicious anæmia.

As a rule malignant granuloma is fatal but its course can be delayed by roentgenization.—*Surgery, Gynecology and Obstetrics.*

The Mechanics and Treatment of Fractures of the Forearm. *J. Am M. Ass.* By P. B. Magnuson.

After analyzing the mechanics of fractures of the forearm, the author groups such cases into three classes with reference to treatment: (1) the non-operative, ambulatory, (2) the non-operative, recumbent, (3) the operative.

In cases of fracture of both bones of the forearm, in which traction is an essential part of the treatment, it is difficult or impossible to maintain traction if the patient is out of bed. When the patient is recumbent a satisfactory method consists in suspending the forearm in a perpendicular position with the elbow flexed at a right angle and the weight of the upper arm acting as counter-extension. If more weight is desired a piece of plumber's lead pipe, hammered flat and bent to fit the arm, may be added.

In applying traction, the following facts should be borne in mind:

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1. The extension must hold the radius and ulna parallel.
2. Extension should be exerted distal and counter-extension proximal to the line of fracture, no overlapping being allowed at the fracture line.
3. The fingers and thumb should be free.
4. Pronation and supination should be under the control of the surgeon and not of the patient.
5. Extension should be applied in such a manner that the hand can be moved without interfering with the direction of the pull.

In ambulatory cases measures must be taken to prevent ulnar angulation of the fragments.

In the operative treatment lateral incisions are made. Only absorbable material should be used for internal fixation. The author favors ivory.—*Surgery, Gynecology and Obstetrics.*

The Ultraviolet Ray in the Treatment of Roentgen-Ray Telangiectasis. *Am. J. Roentgenol.* By H. A. Hazen.

The well-known effect of the ultraviolet lamp in producing an obliterating endarteritis led the author to the employment of the Kromayer lamp to clear up telangiectases produced by radio-therapy. Up to the present time eight lesions have been treated. Three were comparatively small telangiectases due to radium placques, two were large areas covering the entire thyroid and thymus areas, and the remainder were mild scattered lesions due to one erythema dose given for acne.

With an active lamp, using a quartz compression lens, it was found necessary to treat each area from fifteen to twenty minutes. In no instance were more than two treatments necessary to obliterate the dilated vessels completely. The atrophy of the skin was unchanged and usually a small, slightly whitened scar remained.—*Surgery, Gynecology and Obstetrics.*

Severe Uterine Hæmorrhage after Vaginal Operations. *Lancet, 1922.* By J. Phillips.

The author cites the case of a primipara, 24 years old, who was delivered with forceps with a resulting complete laceration. Sutures were inserted, but union did not follow. Fourteen days later, and a few hours after the medical attendant had inserted silkworm gut sutures, violent hæmorrhage occurred from the uterus which was much distended with blood and reached to the level of the umbilicus. Grave symptoms of

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DR. SENIOR: "*Antiphlogistine, my young colleague and friend, is vastly more than a mere poultice.*"

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DR. JUNIOR: "*I suppose I can get a reprint of Dr. Purdy's Paper?*"

DR. SENIOR: "*The Antiphlogistine company will probably have excerpts of the article.*"

shock developed. A few weeks later the author repaired the perineal tear. Good union resulted and there was no postoperative hæmorrhage. Fifteen years later the patient showed signs of Grave's disease, a rapid pulse, loss of flesh, and the characteristic blood changes. After four years of treatment she recovered and to-day is in good health.

The author has never before observed a case of ballooning of the uterus as the result of a vaginal operation, but has records of four cases of alarming hæmorrhage from the uterus following minor operations on the vagina.—*Surgery, Gynecology and Obstetrics.*

Treatment of Injuries of the Brain

Donald Munro (*Boston Med. and Surg. Jour.*) discusses the indications for operation in this class of injuries and concludes as follows: 1. The indications for operation in injuries involving the brain are three: compound fracture of the skull, depressed fracture of the skull, and a rise in the intracranial cerebrospinal fluid pressure. 2. The intracranial cerebrospinal fluid pressure depends on the relation between the secretory powers of the choroid plexus and the absorptive powers of the cerebral venous circulation. 3. Intracranial hypertension may and often does cause death in the absence of any injury to the bony coverings of the skull. 4. All cases that have received or that are suspected of having received an injury to the brain, no matter how slight, should, as soon as they have recovered from their surgical shock, have the pressure of their cerebrospinal fluid measured, and the treatment should be based primarily upon this finding alone.—*International Journal of Surgery.*

Concerning Epilepsy .(*Deutsche Ztschr. f. Nervenh*) By H. Siebert.

The author states that in the great majority of cases there is no evidence of an organic or material injury of the central nervous system in epilepsy. Discussing the relation of epilepsy to trauma and syphilis, he emphasizes that although the physician in the field hospital is in a position to determine the nature and localization of the trauma after which the epileptic attacks made their appearance, he is not always in a position to know what other contributing factors were active in the nervous systems of those who develop epileptic seizures after injuries. In the author's opinion there can be no doubt

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that genuine epilepsy occurs in acquired and congenital syphilis, though it is very difficult to understand how periodic paroxysms can arise from localized lesions, and how, under these circumstances, there can be intervening periods with freedom from symptoms. A case is described of a girl, twenty years of age, in whom what seemed to be genuine epilepsy developed. When the disease had continued for two years a hemiplegia made its appearance after an epileptic seizure, which receded again in a year, leaving a spastic condition of the extremities, absence of abdominal reflexes, nystagmus, atrophy of tongue on the left, amaurosis of the right eye—results which justify the diagnosis of multiple sclerosis, and this disease must be assumed to have been the cause of the epileptic attacks. As the cause of each attack an acute swelling of the brain may be assumed, producing the paroxysms by general irritation.—*The Journal of Mental and Nervous Disease.*

Oxytocics

Commandeur ranks sugar first among the harmless oxytocics; it combats the inertia toward the close of labor, when the uterus musculature has used up its supply of glycogen. He has often used it to good advantage, but it does not always have an appreciable action. He gives quinin during the first stage of labor, and with retention after abortion, giving two cachets of 0.5 gm. with a thirty minute interval, and repeating one or two hours later. He adds that new research is necessary on ergot to find some way to give it that will avoid its present dangers. To date, he says, the only safe rule is not to give ergot as long as there is anything in the uterus. The action of this "king of oxytocics" is not an intermittent, rhythmical contraction, but actual contracture. Pituitary extract requires caution as the uterus reacts differently in different persons. In about 20 per cent. there is no response to it; in others a whirlwind of contractions follows. He never uses it unless the path is clear for delivery, and there is no disproportion between fetus and birth passage, and labor has stopped from pure inertia of the uterus. Then it can be given in a small dose, testing the susceptibility of the patient, unless heart disease with failing compensation, eclampsia, albuminuria or disease with high blood pressure contraindicates pituitary extract.—*J.A.M.A.*

The Romance of Radium

I. THE DISCOVERY

The Romance of Radium had its beginning in 1896, when Marie Sklodowska Curie, then a post graduate student at the University of Paris, began an investigation and study of the newly discovered Becquerel rays, which uranium was found to emit,—rays with power to penetrate thick and light-proof paper and, after such penetration, to fog a photographic plate.

In 1898, after two years of ceaseless research, Madame Curie, assisted by her husband, separated two new radioactive elements in crude form from pitch blende. The more active of these she named radium. After further years of tedious work on a larger scale, she finally prepared a small amount of pure radium chloride. In 1903, with characteristic generosity, part of this precious material was given to Dr. Danlos, of the St. Louis Hopital in Paris for medical research.

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Charcoal Therapy

Wood charcoal for many years has passed out of use for therapeutic purposes; and yet in former days it filled a vogue by no means unimportant. Its virtues have not changed. The deodorising properties of charcoal are unequalled by any antiseptic preparation of the present day. Fewer than fifty years ago "cataplasma carbonis ligni" was the usual treatment for foul sloughing ulcers and gangrenous lesions. As an intestinal deodorant charcoal also proved its value. The writer once found its use extremely effective under the following circumstances. A funeral had been fixed for a particular date—a longer time after death than is usual. Unfortunately, owing to the rapid onset of decomposition of the body it was questionable whether the arrangements could be carried out. The friends became alarmed by the objectionable smell, which was beginning to pervade the house, despite open windows. The problem was quickly solved. A pound of charcoal was obtained and placed inside the coffin; almost from that moment there was no further cause either of complaint or for alarm. A much-advertised deodorant at the time had previously been made use of in the case, but a trial of this had proved quite ineffectual for the purpose.—*Medical Press.*

The Causation and Treatment of Bronchial Asthma

By W. Rubow. (*Ugeskrift for Læger*)

The common statement that the dyspnœa of bronchial asthma is due to expiratory inhibition, is misleading and incorrect. In at least 45 of his 60 cases of asthma treated in hospital, he found the asthma had developed in connection with an attack of acute or chronic bronchitis. It has been argued that asthma is of nervous origin, and due to nervous spasm of the bronchioles, because adrenalin gives such prompt relief in many cases. But the drug may have this effect simply because, by its dilatation of the bronchioles, it promotes passage of air through tubes obstructed by catarrhal swelling of their linings.

K. Petrén has found bronchial asthma remarkably amenable to a system of treatment which not only gives immediate relief, but which also gradually diminishes the asthmatic tendency. But the most important feature of his treatment is atropine, the dose of which is steadily increased. He does not give out-patients more than 3 mgm., but he has given 5 mgm. or more to in-patients, and as much as a total dosage of 9 mgm. in one day. It is extraordinary how tolerant many asthmatics

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are to atropine given for a long period and in large doses. Only in exceptional cases has the writer had to stop at a dosage of 2 or 3 mgm. on account of paralysis of accommodation.—*Med. Record.*

Malaria

Comessatti (*Il Morgagni*) in a lengthy article records his experiences with a large number of cases of malaria. He says the disease has been more serious of late years, not only amongst the soldiers, but in the civil population. In malarial enlargement of the spleen the movement due to respiration is often much limited by the presence of perisplenic adhesions. The absence of any enlargement of the spleen in malaria is uncommon, and some perisplenitis is usually present. Malarial perihepatitis is comparatively rare, although the large liver of malaria is not infrequent. There is no constant relation between the severity of the infection and the size of the spleen. Many varied diseases may be superimposed on the malarial state. The reciprocal effect of typhoid on malaria is of special interest; usually it renders the malaria latent, but neither disease gives immunity from the other. Lobar pneumonia did not appear to be modified by the presence of malaria. The statement that malaria tends to render tuberculosis milder must be accepted with much reserve. When haemoptysis occurs in malaria, pulmonary disease (tuberculous or cardiac) should be excluded before the hæmorrhage is attributed to malaria. Malarial anæmia assumes peculiar gravity in pregnancy. The pigmentary changes in the skin and pathological findings show that the suprarenals are often affected. The author discusses malaria and pregnancy, congenital malaria, malaria and the nervous system (six severe cases with meningitis are reported in full), and the treatment by quinine, by diet, by arsenobenzolin, and by radiotherapy, and ends his paper by giving certain criteria to judge whether the malaria is cured or not. —*British Medical Journal.*

Treatment of Hiccup

Wegele (*Deut. med. Woch.*) discusses the treatment of hiccup, and notes that in slight hiccup a teaspoonful of sodium bicarbonate on a full stomach may often give relief, its action probably being due to generation of carbonic acid. He also recommends a device described in 1921 by Fuld, who found

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that the introduction of a stomach tube quickly arrests hiccup. A more radical procedure is the injection of an anæsthetic into the phrenic nerves, as recommended by Kroh (*Deut. med. Woch.*, August 11th, 1921). A few days after reading Kroh's account Wegele was consulted by a patient who suffered from incessant hiccup, and had been able to eat little and not to sleep at all for eight days. A careful examination revealed nothing abnormal apart from the hiccup, and as it was unaffected by compression of the phrenic nerves and the patient was in a critical condition, bilateral injections of novocain were given, an interval of a day being allowed between the injections on the two sides. Complete arrest of the hiccup was effected in a few hours, and when the patient reported himself eight days later there was no sign of a relapse. In one of the two cases recorded by Kroh, the patient had been driven so frantic by the hiccup that he attempted to commit suicide. The result in both these cases was dramatically successful. Kroh injects the local anæsthetic about two fingerbreadths above the clavicle, the needle being inserted at the outer border of the sterno-mastoid muscle and thrust to a depth of 2 to 4 cm. Pain in the shoulder and cardiac and abdominal regions betrays contact of the needle with the phrenic nerve.—*British Medical Journal.*

Miscellaneous

Prohibition

An Englishman back home from the United States spoke of Prohibition (or, as he preferred to call it, "Discouragement") as follows:

If you arrive in New York without acquaintance you might spend several hours without breaking the law, but as soon as you get one friend the American Constitution presents itself in a new light, and one can drink at any time he thinks fit, if he can endure whiskey. That is the tragedy of "Discouragement," that light wine and beer are scarce, while whiskey flows like the Severn tidal flood, being obviously a more profitable article to smuggle than the weaker bever-

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ages. Men come over from England who never touch anything but sauterne and a little port. They leave the United States confirmed whiskey drinkers.

My first experience of "Discouragement" was a man who met us at the wharf with a bottle of whiskey which was carried secretly to our hotel and opened by a negro with a screwdriver. My next was sinister. You cannot imagine the delicious thrill of naughtiness with which one consumes even whiskey in the United States. The thrill is almost entirely responsible for the great boom in drinking which has followed Prohibition. Innocent old men have abandoned cocoa and taken to cocktails. Nice old ladies run distilleries in the basement or furtively manufacture whiskey in the kitchen; the joy of being wicked without really being wicked has brightened many a drab house or disappointed soul.

Prohibition has given people an interest in life. It has brought back romance. It has brought back the smuggler, and the bandit, and the pass-word and the small boats shaling into lonely bays at dead of night.

One day we were taken to a place that looked like an ordinary lodging house. Our friend hurried us up three flights of stairs; at each landing there stood some sort of a Dago to whom he whispered some mysterious sort of pass-word. We arrived at last at a small and dingy bedroom, almost filled by a huge bed covered by a dirty white counterpane. It was like an Ibsen play. The wall paper was decayed and streaky; on the mantel-piece was a small bust of George Washington, and one felt that even he was decayed. Into this squalid chamber there entered, an Italian (in his shirt sleeves) and an Italian woman, who mixed three cocktails at the wash stand; for each our friend paid the equivalent of five shillings. We crept out feeling really wicked at last, and I still treasure the little card with the secret sign scribbled which gave me the freedom of the place.

In a sense American history may be said to have begun when they threw the tea into the water, and many Americans fear that it may have ended when they threw the wine after the tea.—*Punch.*

The Old Ones are the Best

Higgins got home one night to learn that his wife had given birth to triplets—three healthy, bouncing boys.

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Original Communications

Presidential Address, Academy of Medicine, Toronto*

By Dr. Wilbur H. Harris.

It is fitting, in opening an address of this kind, to direct our attention for the moment to the memory of those who, since the last presidential address was delivered, have laid aside life's activities and passed into the infinite unknown. "We do this with a sadness that does not expend itself on personal losses and the uncertainty of our own undertakings, but a disinterested sorrow for the community loss from the decay of such splendid and highly cultured lives." To the roll call, the following fail to answer—Allen Baines, W. C. Barber, G. A. Bingham, A. J. Fraleigh, George E. Elliott, J. J. Mackenzie, Thos. Millman and W. T. Wallace. The citation of these names is sufficient warrant for the assertion that the personnel of our membership has suffered abnormally during the last twelve months.

In looking over our Act of Incorporation, I noticed these words, "The corporate influence of the profession in relation to the community." This phrase suggests consolidated individuality and contains the thought toward which I have directed my attention for the subject matter of this address.

Influence is determined by various factors. These elements may not be very evident; they are like the inherent forces of life which result in life and which "we may compare with seed for with that the plant begins, yet it is the result of the plant's entire life."

Beneficent influence is constructive; to build, rather than to demolish, its mission. The framers of the Act of Incorporation by which we are governed, very carefully selected the

*Read at the Stated Meeting, October 3rd, 1922.

constitution, the basis of our institutional existence, which has regulated our energies in consonance with their ideals. The constitutional parts of these regulations illustrate their conception of what our aims should be. Their foresight and judgment are to be commended. They conceived for us a heritage which should remind us we are Fellows of an Academy with potentials of no mean order.

Born at the death of its predecessors, illustrating that change, while it imports dissolution, involves at the same time the rise of a new life, that "while death is the issue of life, life is also the issue of death." The incarnate attributes of our founders are the vital principles that actuate us to-day.

Our corporate influence depends on the judgment that is displayed in directing our activities as well as on the essential nature of the spirit that incites us. "The very essence of spirit is activity" and contemporary life the object on which it acts. Spirit is the inciting cause of community feeling and interest, and has as its unit of power the attitude of mind of the individual. From the medley of preceding thought and influence, the Greeks promulgated the conception of the freedom of the spirit, of free individuality as it pertains with slight modifications to-day. They overcame blind obedience to moral requirements as they had existed in the Asiatic world where compulsion overawed personal conviction or inclination.

The British have been called the missionaries of this world's civilization. We have been told that the corporate power of the race, who have evolved the Empire of which we form a part, is not influenced by a written constitution, but is the sum total of that community feeling which, as a complex, spells national spirit. Early in the last century, Victor Hugo paid the English a compliment on an occasion when he wrote that the day will come when two placards will differentiate the inhabitants of the earth. On one he would write "men" and on the other "Englishmen." It may be that the prophetic vision of this humanitarian dreamer has already been realized, as the alignment of world forces in the recent war resulted more from admiration of, or respect for, the principles that underlie their institutions rather than from affection for the people who represent the heart of our Empire as it exists to-day.

From history we learn that corporate influence has been short-sighted and selfish, overlooking lessons that should have been learned from the past. Hegel says "Rulers, statesmen,

nations are wont to be emphatically commended to the teaching which experience offers in history. But what experience and history teach is this—that peoples and governments have never learned from history or acted on principles deduced from it."

"Each period is involved in such peculiar circumstances, exhibits a condition of things so strictly idiosyncratic, that its conduct must be regulated by considerations connected with itself and itself alone."

Amid the pressure of present events as passengers on the eternity of time, it may not be amiss that we should be reminded that, philosophically and ethically, the world as we know it is still young. Seventy generations of the average span carry us back to the era of thought as it existed when the seekers after truth "began to struggle with the great problems that confront us to-day," to Aristotle, to Plato and Socrates. "Their writings are our dawn." From them we learn that the questions that they so earnestly discussed do not materially differ from the problems that continue to interest and agitate our race. Further, we may learn, though this is regarded as a world of change, there is a thing that has not changed—and that is human nature. Osler says of these fathers of philosophy, that their writings are pregnant with ideas "which indicate a profound knowledge of that side of human nature which turns uppermost." I will not labor this thought beyond suggesting that it is a sad commentary on the inevitable tragedy of individual self-seeking, that the generous instincts of life and the opportunities of endeavor are so often sacrificed in the struggle for preferment. Individual and corporate enterprise too frequently have for their aims the shifting of burdens to the shoulders of those already overburdened. "Many things we are accustomed to admire as the benefits of freedom and common to all, are truly benefits of wealth and take their value from our neighbor's poverty."

Human thought and activities travel in cycles. In the individual and in the body politic, atavistic reversion acts as a stabilizer. From history we learn that the ancient Chinese considered morality a political affair to be administered by governments and legal tribunals. It seems incredible, yet it is true, that our regard for saneness, greatness and beauty is not sufficient to counteract the qualities that tend to overwhelm the finer instincts of our race. It has been the record of humanity that degeneracy has gone far afield before it has attracted sufficient attention to warrant legislators bowing to

the will of that nameless accuser—public opinion, thereby enacting legislation designed to thwart the prevailing evils. Throughout civilization an attempt has been made to lessen the ill-effect of the intemperate use of alcohol. While the methods employed are open to criticism, and the results obtained not all that could be desired, yet what has been done at least directs public attention to the enormity of the task in hand. Corporate bodies of an altruistic type should lend themselves to constructive rather than destructive criticism, always remembering that it is easier to discover a deficiency in a measure than to see its real import and value. At its birth, the Ontario Temperance Act appeared like an intemperate attempt to enforce temperance. As practitioners of medicine we claim the right to prescribe alcohol for our patients. The present act recognizes that right and places on us the responsibility, primarily as citizens and secondarily, as physicians, to respect and administer the law as it exists. When the time is opportune, our corporate influence may prevail on those in authority to amend the Act in accord with the views we may hold regarding the permanent solution of this difficult problem.

Herodotus tells us the early Egyptians were a highly organized people. They had physicians specially devoted to particular diseases and possessed many of the refinements that occupy the attention of our profession to-day. The women were engaged in outdoor work while the men remained at home to weave and attend to other domestic duties that have since been relegated to the gentler sex.

Biological considerations demand that posterity be properly mothered. "Women are the poetry of the world as the stars are the poetry of heaven." We regard the abstract question of women's rights as settled. We desire that her clear, light-giving, harmonious nature should dominate this world, not because of her equality, but because of the innate superiority that characterizes the female." In this age of incredulity, her affections and beliefs and ruddy convictions are wiser than ours. Feminine qualities, invaluable to our civilization, are daily sacrificed under the lash of necessity. This is inevitable while the gleam of gold retains its place as the goal of human ambition.

Legal questions demand our attention. Should the mentally and physically defective, who are liable to transmit their faults, be allowed to burden posterity with their failings? Preventive measures have been advocated by members of our profession in the halls of our Legislature, but no corporate

support has been forthcoming from our medical societies. Unwilling to assume disagreeable obligations and shackled by the chains of custom, we allow these unfortunates to perpetuate their misfortune. "Without health, life is not life, it is only a state of languor and suffering, an image of death."

Diodorus thought the presentation of evidence and pleadings in writing obviated the perverting influence of forensic oratory. Those of our membership who are called upon to give evidence in our courts appreciate the weakness of our present system. A written statement would be an accession to the dignity of our profession.

The ascendency of the farmer in our civil life is a striking evidence of corporate influence. Politics make strange bedfellows. Stability seemed assured to parties composed of individuals from every walk and station in life; staunch believers in the traditions that formed the background of their "prides and principles and prejudices and hates." Down through the ages, the hustings have echoed the voice of the man in the saddle. The horse has been superseded by other means of locomotion. The public ride like vagabonds on the bumpers or occupy questionable comforts such as are supplied on a mountain observation car, while the upholstered occupants of the sleepers railroad us to ruin. "Parties and ideas continually move but not by measurable marches on a stable course. The political soil itself steals forth by imperceptible degrees like a travelling glacier, carrying on its bosom not only political parties, but their flagposts and cantonments." Agrarianism, as a force in politics, did not result from a desire on the part of the agriculturists to govern, but rather from a wish that their corporate influence should be consolidated for the purpose of minimizing legislation which seemed harmful to them. With the sunburnt earth as a fulcrum and a unified mass of public opinion as a lever, they have experienced unexpected success in wresting seats from the mighty.

The vagaries of party politics do not concern us as a corporate body, yet we are vitally interested, directly and indirectly, in the present inordinate tendency to organize and centralize. "Our legislation grows philanthropical, bristles with new duties and new penalties and casts a spawn of inspectors over the face of our land." "We chafe a good deal at that excellent thing, the income tax, because it brings into our affairs the prying fingers, and exposes us to the tart words of the official." Apollo's celebrated precept, "Man, know thyself," has been supplanted by a demand for a stereoscopic exposure of our neighbor.

Mote-hunting with imperfect vision may account for the failure of our profession to appreciate the importance of the forward strides that have been taken along various lines. This has made serious inroads on activities that should not have been relegated to the domain of public health or the limbo of free clinics.

We must not forget that as a profession we exist for the relief and cure of the sick. It is not what we know, but what we can do that determines our importance in the community. To succeed we should have therapeutic as well as diagnostic skill. Formerly, if we did not walk by sight, at least a mysterious faith in our remedies possessed our soul. An indifferent attitude when we come in contact with minor ailments leads to discontent. If we neglect to provide suitable remedies for annoying complaints it will prove a potent factor in the development of the cult Nihilism that now seeks legislative recognition.

The expressed opinion of some of our political leaders is fatefully prophetic of the future. If the practice of medicine, as we know it, is to survive, we must endeavor to see that competent attention is available for all. To-day, one of the most urgent reasons for the sacrifice of our profession on the altar of state medicine is the inability of the residents of isolated districts to secure sufficient efficient medical attention. As the largest unit of the Ontario Medical Association, this matter comes within our purview.

General practice, still the mainstay, has always been the tap-root of our profession, the anchorage that has creditably weathered the storm of public requirements. Contract practice and the Workmen's Compensation Act have already placed quite a percentage of our population on the panel. The specialties have lopped off many branches; group clinics threaten still larger contributions. One by one the limbs have been sacrificed to the onward rush of change. Our professional tree has lost its symmetry. If we are to preserve the trunk, we must avoid complete denudation, as a stump will not long survive if the evidence of life is obliterated.

The present tendencies to delegate to governments services that should be left to individual initiative, is seriously affecting the vitality and self-reliance of our citizenship. Virility is not stimulated by coddling. The occidental as well as the oriental features of our legislation should be carefully selected. While individual legislative protection appeals to those interested from a selfish standpoint, yet governments are not able to carry unlimited burdens.

Paternalism breeds perennially and simulates in its insidiousness a specific malady with protean manifestations and a pallid etiology which, by the very nature of its dissemination, affects the just as well as the unjust. We select our deputies, the legislators, more or less at random and say to them, "Be ye our conscience, make laws so wise and continue from year to year to administer them so wisely that they shall save us from ourselves and make us righteous and happy, world without end."

Our association with the University of Toronto is an asset, the value of which we cannot over-estimate. Some of our most progressive and interesting evenings are only possible through their good offices. Last session, through the Physiological Department, Dr. Banting and Mr. Best presented an epoch-making contribution. We entertain the hope that their results are sufficiently encouraging to excite others to emulate their ambition. In the near future, our obligations will be further increased by a study of metabolism.

With a view to stimulating interest in our work, thereby directing and increasing our usefulness, your committee have prepared the outline of an elaborate programme for the session which will touch on every phase of our professional life. This evening we are to be entertained and instructed by a paper on "Recent Advances in X-ray Therapeutics," a paper of the utmost interest. We are honored by having Dr. Morton of London, England, as our guest. His visit to America in response to an invitation from this Academy is particularly gratifying.

Malignant disease has proved so baffling to investigators that no address is complete without a reference to the unsolved cancer problem. During Cancer Week, a phase of the subject in which we are vitally interested will be presented by Professor Carter Wood, of New York. Later in the season, one of the most important of the subjects towards which your attention will be directed is that of maternal mortality, a question so freighted with horror that we shrink from the suggestion that much of it is preventable.

The programme is too lengthy for us to elaborate the details of our activities. The other stated, as well as the sectional, meetings are filled with material quite as important as that enumerated.

History reveals the past, experience mirrors the present—for the future, question marks are everywhere. No

one seems to know the outcome of the unrest that threatens our civilization. The sails of our polity are trimmed for squalls which, at least in parts of Europe, have proved too much for organized government. At the risk of being called a reactionary, I suggest that the doctrine of individual effort is what is needed to stabilize our organizations. As I remarked earlier in this paper, human nature has not materially changed. This means that what has happened will be repeated. Might is not right, but might will be tempted to take advantage of any international situation that looms on the horizon which has in it an excuse for conquest. Just as sure as the night follows the day, so surely will another world war be on the hands of our descendants in the not distant future. As we have taken our place among the nations of the earth, it behooves us to remember the lesson of 1914 and keep in mind the doctrine of preparedness. We apparently have no competitors for first place in international leadership on this account. We had hoped our great neighbor to the south would have assumed a position in the spiritual leadership of the world. She hesitates, not because the best opinion in that nation is opposed to her taking her natural position, but because the politicians feel insecure before the uncertainty of some shades of popular public opinion. I have always felt that one of Canada's great contributions to the war was the American nation. Their admiration for Canada's war work was unstintingly expressed. Occupying the half-way house between two of the most powerful nations in the world, understanding each, it is our function to keep them in touch with one another, to act as international interpreter for both. It is only by trying to understand others that we can get our own hearts understood. I know of no agency more potent in this respect than our own profession, and no corporate body more active in promoting a correct attitude of mind than this Academy of Medicine.

Faith and co-operation are the essentials that have amalgamated individual efforts and corporate power to such advantage in the field of preventive medicine. In no other direction have such striking results demonstrated the force that accrues from the corporate use of information that is discovered by individual initiative. Whereas, among the most backward part of the world's population, the death rate still is forty per thousand, the death rate in progressive communities is about ten per thousand, and the average life lengthened eight or nine years. This is a vindication of our community activity in the direction of public health.

The outlook is decidedly bright and rouses "the hope that the grip of the tyrant of contagion on the peoples of the earth is destined to be broken, and that as the generations come and go, the science of eugenics and the science of preventive medicine will work hand in hand for the development and maintenance of a better race."

A word for the library. Modesty, humility, philanthropy and forbearance have been referred to as the litany of the private virtues. I trust I am not transgressing this ritual when I designate our library a home of immortality. Plato said "If the ideas of men are eternal their souls are eternal; if not the ideas, then not the souls. Thought, the soul of the world, permeates the world." Ideas are immortal, their preservation and diffusion our objective that may be used in the present and transmigrated in their entirety to posterity. "If the ancients left us ideas, to our credit be it spoken, we moderns are building houses for them." We should regard this library as our special consulting room. From slender beginnings, there has been gathered here a numerous and select collection of books. Our walls are hung with paintings, engravings and photographs which are commended to your individual attention. We also possess the nucleus of a museum. My impression is that recent literature has not shared a place on our shelves as generously as its merits warrant.

As the result of our academic and social association here, a comprehensive viewpoint should be stimulated. Undue solicitude should be obviated lest it confuse or obscure our vision. Petty distrust tends to stultify the activities of corporate bodies as well as individuals. The dictum, "No man is a hero to his valet," does not imply the former is no hero; the defect may be in the valet.

In the time at my disposal, it is not possible to detail the outlook that confronts us as a corporate body, or adequately to express appreciation of a past that has been honored by so many distinguished members. A revered medical author advises the swell front and the south exposure as the habitat of the desirable patient; yet our enviable position is not the result of the brown-stone, or the big fee, or the high-powered car. Fiction has served us; our influence results in no small degree from the appeal which our work makes to the imagination of the writers of current literature; this, because of the devotion to duty that has characterized our history. The force that has developed our corporate influence and immortal-

ized the spirit of our profession is individual activity. Individual preferment, academic or otherwise, based on a recognized method of selection, must continue to characterize our work. Individual energy must be the basis of our progress, a field where we are all free and equal, and it is to this that I particularly desire to direct your attention. The most important item in life is the task immediately in hand—our attitude towards our obligations. Beaconsfield said, "It is the personal which interests mankind, that frees their imaginations and wins their hearts." Our work so vitally affects the individuals with which we come in contact that we should cultivate optimism. The sanguine mind is the remedy that is most apt to deliver us from the moral fatigue that tends to produce loss of interest in the background of endeavor. I have adopted, as appropriate thought for this occasion, Robert Louis Stevenson's estimate of daily routine. As adapted it reads—"Here, then, is work worth doing and worth trying to do well." And so, if I were minded to welcome any great accession to our profession, it should not be from any reason of a higher wage, but because it is a profession which is useful in a very great and in a very high degree; which every honest worker can make more serviceable in his single strength, which is difficult to do well and possible to do better every year, which calls for scrupulous thought on the part of all who practise it, and hence, becomes a perpetual education to their nobler natures, and which, pay as you please in the large majority of the best cases, will still be underpaid. "But each for the joy of working and each in his separate star, shall draw the thing as he sees it for the God of things as they are."

A Resumé of the Surgical Treatment of Duodenal Ulcer

By A. L. Lockwood, M.D.,C.M., F.R.C.S.

During a recent clinical tour which took me practically all over the continent, it was a great pleasure to see the high standard of surgical judgment and technical skill which is at present universally displayed. While the great fundamental principles of surgery seem to be generally recognized and practised, certain thoroughly established diagnostic methods and surgical mile-posts are either unknown or ignored.

I was surprised to see two surgeons, both men of some international reputation, perform a posterior gastro-enter-

ostomy for duodenal ulcer which could not be demonstrated at operation in either patient. The absence of stipling, scarring or deformity was not remarked on. In each patient the duodenum was palpated and observed, and the posterior gastro-enterostomy carried out without any comment whatsoever. On enquiry, one surgeon stated that although he could not demonstrate the ulcer, he was sure it was there because the patient gave such a typical ulcer history. The other surgeon said that he never hesitated to complete the operation when such clear subjective symptoms were present, even though there was not a demonstrable ulcer.

In 1904 W. J. Mayo[1] pointed out the disastrous consequences of gasto-enterostomy performed for the cure of a duodenal ulcer that did not actually exist. Up to 1915 over one hundred patients who had had gastro-enterostomies, presented themselves at the Mayo Clinic, and required a second operation to undo the gastro-enterostomy, and in none of these cases could any evidences of the duodenal ulcer be demonstrated. Following such an injudicious operation as gastro-enterostomy where no ulcer can be demonstrated, the patients are made greviously worse and require a second operation to close the stoma.

There has been a renewed interest in pyloroplasty in preference to gastro-enterostomy for duodenal ulcers.

Finney, one of our most astute and judicious surgeons, has for years held to his pyloroplasty operation in preference to gastro-enterostomy. W. J. and C. H. Mayo have for years employed pyloroplasty in selected cases and recently the former has been employing it more frequently. Judd, in over four hundred patients, has been content to excise the duodenal ulcer and close the abdomen without further operative measures. These men have had enormous experience. They are close observers and sane and sound in their judgment, not easily swayed by suggestion or an occasional disappointment. Why have these leaders in our profession avoided the long established procedure of gastro-enterostomy, even in selected cases?

Paterson[2] in 1909, in a comprehensive article refers to collected cases of recurrent ulcer following gastro-enterostomy, fourteen of which were undoubtedly true gastro-jejunal ulcers. Mayo Robson[3], Mayo[4], Moynihan and Tatlow[5], Soresi[6], Carman and Balfour[7], Eusterman[8], and many others have reported cases and written at length on the development of gastro-jejunal ulcer following gastro-enterostomy. Eusterman[9] in 1919 pointed out that of three thousand seven hundred gastro-

enterostomies performed at the Mayo Clinic, 1.3% were re-submitted to operation for gastro-jejunal ulcer. It is conceded that in the hands of the most thorough surgeon, 2.5 to 3% of patients develop a gastro-jejunal ulcer following gastro-enterostomy.

It is unnecessary to point out to the profession the gravity of the development of such an ulcer, and its peculiar resistance to any form of medical treatment. Surgery must be instituted for the eradication of the ulcer-bearing area. The operation itself is not always easy or free from grave sequelæ. Complete relief of symptoms after the second operation does not follow in more than one-third of the patients. The immediate post-operative risks and sequelæ of gastro-enterostomy even at the hands of the most expert surgeon should be generally appreciated. The mortality is small but cannot be overlooked. To the particular patient it is 100%.

Acute dilatation of the stomach, the duodenal syndrome, peritonitis, hæmorrhage, a vicious circuit and obstructions due to kinking or adhesions must be borne in mind.

With these facts before us, we should weigh the merits of pyloroplasty, excision of ulcer only, and gastro-enterostomy in each individual patient, being guided by the local findings of the duodenum and stomach.

Finney[10] states that he has never known of an ulcer developing at the site of a pyloroplasty. Immediate post-operative sequelæ of pyloroplasty are rare and not as serious as following gastro-enterostomy. About the eighth day, however, the stomach tube should be freely used if there is any tendency to nausea or dilatation of the stomach.

On the whole, gastro-enterostomy has been one of our most successful operations, but there is a place for pyloroplasty and perhaps for simple excision of the duodenal ulcer. The scope of this paper will not permit of an exhaustive discussion of the relative merits and indications for one or the other procedure. However, in patients with a duodenal ulcer, the surgeon should open the abdomen with a free mind to do either a pyloroplasty or a gastro-enterostomy or merely excision of the ulcer, depending on the subjective and objective findings.

The essential principles and technique of pyloroplasty as practised by Finney himself should be recognized and adhered to. The operation properly performed in selected cases is not difficult and the results in those cases are better than following gastro-enterostomy. However, a badly performed gastro-enterostomy will usually function, while a badly performed

pyloroplasty will seldom function. Soiling by duodenal content rarely produces peritonitis, while peritonitis from the infected jejunal content is not uncommon.

Gastro-enterostomy for recurrent ulcers after pyloroplasty is quite easy whereas pyloroplasty after a gastro-enterostomy requires considerable surgical interference.

Recent experimental work on animals leads me to believe that the Finney pyloroplasty can be very much simplified and be more readily performed without any soiling whatsoever. In a later contribution a report will be submitted of the results of our effort to develop a more refined technique.

In conclusion I believe that pyloroplasty in selected cases is preferable to gastro-enterostomy, and should be more widely employed.

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Cancer of the Uterus

By Dr. F. W. Marlow, Associate Professor of Gynæcology, Toronto University; Senior Attending Gynæcologist, Toronto General Hospital.

The subject of cancer of the uterus is one which is still unsolved and clothed with mystery.

For many years those pioneers in abdominal surgery, commonly referred to as gynæcologists, have earnestly worked in their search for such understanding of the disease as might place its treatment on a thoroughly scientific basis, but even

yet the results of their labor are most disappointing. While it is true that in a small percentage of cases complete relief is attained, and in a moderate proportion of cases abatement of symptoms and temporary improvement are gained by treatment, there is still a very large number who go unrelieved to their more or less rapid demise, or who, having successfully gone through the risk of surgical or other procedures attended by grave danger, are soon again attacked by extension or recurrence, or who, if evading the somewhat inordinate mortality attending procedures suggested sometime and adopted, have their days more appreciably shortened than if allowed to go untreated. Improvement in modern surgical technique has not been attended by a corresponding increase in our ability to cope with the disease.

When one observes the refinements of the abdominal panhysterectomy of to-day, it is a cause of amazement to find that barely thirty years ago such a procedure was practically unknown, while supravaginal hysterectomy was only performed by the use of the pedicle clamp and extra-abdominal treatment of the stump, a procedure which one personally witnessed in the operating theatre of one of the large London hospitals just about twenty years ago.

One of the first abdominal surgeons and gynæcologists to describe and advocate a method of abdominal pan-hysterectomy by a ligature method so as to obviate the use of the clamp and sloughing of the extra-abdominal pedicle with its frequent disastrous results, was my former preceptor, the late Dr. James F. W. Ross, the first President of this Academy of Medicine of Toronto. Dr. Ross was also one of the first to successfully perform such an operation. The description of the procedure appears in the Canadian Practitioner for December 16th, 1891, his paper having been presented before the Southern Surgical and Gynæcological Association, at Richmond, Virginia, November 11th, 1891.

While addressing the Ontario Medical Association on June 2nd, 1892, on "Hysterectomy with and without a pedicle," (Canadian Practitioner, July 16th, 1892) Dr. Ross said, "I will never do another abdominal hysterectomy with an extra-abdominal pedicle as long as I live if I can operate by this other method. I feel that this operation will be the one generally adopted before another five years are over. I can heartily recommend it."

During an association of eight years with Dr. Ross, he told me many a time of his experiences and those of others with

the old extra-abdominal pedicle operation for the removal of the uterus, and each time I congratulated myself that my surgical career had not begun until he and those other splendid pioneers in abdominal surgery had made the operation of hysterectomy, in competent hands, truly surgical, scientific and reasonably safe.

But even twenty years ago or less, the operation of abdominal panhysterectomy was looked upon with great concern, and vaginal hysterectomy was regarded by many as a safer procedure. In respect of cancer of the cervix, high amputation of the cervix, preferably by the cautery, was advocated by many as being a much safer procedure than hysterectomy.

An active surgical experience of twenty years has convinced me that the operations of hysterectomy have attained a state of refinement that does not afford much room for improvement except in respect to a more exact and intelligent selection of cases for submission to the various procedures. With proper selection of cases and methods, there should be practically no early mortality, provided that the surgeon is competent and recognizes his own limitations, which, unfortunately, some operators are not disposed to do.

In spite of its refinements, however, the operation of hysterectomy is inapplicable to a very large proportion, even the majority of cases of cancer of the uterus, one of the most common diseases of that organ.

Theoretically, there is a stage in every case of cancer of the uterus when hysterectomy is applicable, and permanent relief may be obtained, but, unfortunately, this stage is very frequently passed before any symptoms are noted which might even suggest a diagnosis, and if symptoms are present they are often misinterpreted or neglected until inoperability ensues.

The inapplicability of surgical procedures in the majority of cases of this disease has afforded opportunity for the inauguration of some other forms of treatment, which, though strongly advocated by enthusiasts employing them, have not yet been accepted as likely to solve the problem.

Notable amongst these is the heat treatment which has been so extensively employed by Dr. Percy, of Galesburg, Illinois, its principle depending upon the assumption that the cancer cells are destroyed by a lesser degree of radiating heat than the normal tissue cells. Although this method would appear to have been attended by some degree of success as carried out by Dr. Percy, there seems to be but little evidence of its

extensive adoption by other surgeons, many of whom, like ourselves, have tried it but have been disappointed with the results. It is no doubt true that in many cases some relief of symptoms follows the Percy method of heat treatment, while at the same time the best results of the treatment are attained in the early cases in which the disease is well localized and easily accessible without requiring penetration of the heat over more than a comparatively small area; in other words, in such cases as would appear to the surgical mind to be still operable.

Beyond this, in cases in which the surrounding tissues are involved to an indeterminate degree with possibly glandular or metastatic extension, it cannot justly be claimed that such treatment is founded on a scientific basis or is likely to effect a cure.

Besides, its extensive employment may result in so much devitalization of the normal tissues that more rapid extension or non-resistance to infection may be induced.

Of late years, and particularly at present, another method has been engaging our attention, and that is the ray treatment, either by radium or X-ray, both of which are powerful armamentaria for good, if intelligently used, and their dangers and limitations recognized, but which may, if otherwise employed, induce results which are deleterious or even disastrous.

The diminutive size of the world's supply of radium and its great cost have tended to a very narrow application of this method of treatment, its use being confined for the most part to a few large hospitals or other institutions, and to some individuals whose circumstances and its successful employment for other conditions and more accessible cancers, have contributed to their good fortune in accumulating an effective quantity. Consequently the evidence regarding the treatment of cancer of the uterus by radium can only emanate from a few sources, and as yet it cannot be said that such emanations are particularly convincing as to its efficacy.

As has frequently been said apropos of medical conferences pertaining to broad and important subjects, "Deliver me from the man who has had a case," with the accent on the "a," so, too, it has recently been said, "Deliver me from the enthusiast who has a little radium acquired at great cost."

When one recognizes the potency and value of radium therapy in cancer of the cutaneous and easily accessible mucous surfaces of the body, there is a tendency to hope for analogous results in cancer of the uterus which presents proportionate

though unequal accessibility. As yet, however, it does not appear that such hope is likely to be soon realized. Difficulties in the way are great, and pitfalls are numerous. The early, well localized cancer of the cervix, and particularly the squamous variety, is the one in which radium is most applicable, just as is the case with radiant heat or even a surgical procedure, but the vast majority of cancers of the uterus penetrate the wall of the cervix and tend to infiltrate the surrounding tissues at a comparatively early date, while glandular involvement is moderately frequent, though usually occurring at a later date than parametrial direct extension.

Besides accessibility and the radius of effective penetration of the radium emanations, the dosage is a most important item as considered in relation to the reactionary features of the tissues of the individual. That a proper relation between the potency of the treatment and the local reaction of the patient can be maintained seems a doubtful proposition.

Insufficient radius of penetration may cause failure to cure or even relieve, as may also insufficient dosage, and it is conceivable that the latter may hasten proliferation of the cancer cells and favor extension, while on the other hand, excessive dosage may be so prejudicial to the infiltrated and adjoining normal tissues as to promote rapid, though perhaps somewhat deferred, extension, or to result in more or less extensive sloughing complicated by infection with rapidly fatal termination.

Such untoward results have come under our observation and we are forced to conclude that radium treatment is not without risk, and that its employment demands much care and intelligent and honest interpretation of its effects. To it may be ascribed a measure of success, not yet too well established, and particularly as a means for relief of distressing symptoms and deterring to some degree the progress of the disease. Used in conjunction with surgical procedures, before or after, or both, the total of operability may be somewhat increased and extension or recurrences deferred or diminished.

Therapy of so difficult access to the multitude of sufferers from cancer of the uterus, and as yet so uncertain in its results, though undoubtedly and rightly accredited with some and increasing value, marks progress but yet fails to establish procedure.

Treatment of cancer of the uterus by X-ray is still in the experimental stage and for the most part has been employed as a "last resort" method in cases that have been considered

inoperable, with the object of holding up the progress of the disease and relieving symptoms, and following the operation of hysterectomy to minimize the chance of extension or recurrence.

That it affords some relief in inoperable cases in which the involvement is still fairly well confined to the pelvis is a fact now fairly well established, but as to its effect following operation it is yet doubtful if sufficient information is available to show whether the proportion of extensions or recurrences has or has not been reduced by its use.

It is a matter for congratulation that radiologists have succeeded in establishing a technique whereby deep, high voltage X-ray may be used with comparative safety. The area and depth of penetration of the rays can be made to include the whole of the tissues locally involved and the dose is subject to accurate regulation. But as with radium, the reactionary powers of the individual cannot be accurately estimated or controlled and consequently the results must be subject to great variation.

The method is not without risk and instances are not infrequent in which serious consequences, mostly from sloughing or infection, have rapidly followed its use. This is inevitable so long as the extent of the disease and individual reaction to the rays cannot be definitely pre-determined, and yet in view of the seriousness of the disease and its utter hopelessness if left untreated, any method which shows a fair proportion of benefit is justifiable in spite of the risk attending its use.

This method, like radium, is not easily available to the masses of cancer patients on account of the extensive and expensive equipment required and the urgent need of much well-sifted experience on the part of those in charge of such therapy. Here again the man with insufficient equipment or experience in its use has no function to fulfil in the ray treatment of uterine cancer.

As to the combined use of radium and X-ray one can only speak with similar reservations. Results are promising, but as yet by no means convincing. No doubt if great benefit from ray treatment becomes an established fact, facilities for its accessibility to the masses will soon be provided.

It may perchance be demonstrated, as might reasonably be expected, that ray treatment will show much greater efficacy when used in early cases in which the disease is well localized and the resistance of the surrounding tissues as well

as the general resistance of the patient is not vitally lowered, and it is hoped that the line of operability will be so circumscribed, and so well-defined, that an opportunity will be afforded for a trial of ray therapy before the case assumes a practically hopeless aspect. Nothing could do more to promote the possibility for early diagnosis of uterine cancer than the establishment of a sense amongst women that to have an early investigation of their irregular bleeding and discharge would not mean that they were confronting a surgical operation.

The next most potent factor in establishing early recognition of this disease would be a feeling of confidence amongst women that medical men would not fail to take every possible precaution in the investigation of their symptoms towards the establishment of a diagnosis, that surgeons would take time for honest investigation and use every means at their disposal towards the same end and to determine the operability or otherwise of the disease if it exists, and above all to recognize their own limitations in the performance of the operation of hysterectomy for uterine cancer, which at all times is serious and not too promising as to immediate or ultimate results.

Operability is possessed of two phases, one precise and the other doubtful. In the former it must be determined that the disease is well localized in the uterus with no spreading other than a very small amount on the vaginal vault, and that the local and general condition of the patient are such that the complete removal of the uterus and the vaginal vault offers a fair prospect of complete relief from the disease without submitting her to unwarranted risk. In the latter the disease must still be well localized and with only slight suspicion of involvement of surrounding tissues, so that the performance of hysterectomy, while not offering such good prospects for complete relief, can be performed with reasonable safety and without invading tissues which are definitely cancerous and incapable of removal. Such procedure is aimed more at reasonably prolonged relief of symptoms than at a cure. Marked extension over the vaginal vault or definite, recognizable involvement of tissues beyond the uterus and notably the cellular tissue within the broad or utero-sacral ligaments, or between the uterus and the bladder preclude operability, as under such conditions complete removal of the diseased tissues is practically impossible and to attempt it is to submit the patient to a risk which is unjustifiable, on account of the

relatively high mortality of the procedure and the certain prospect of early extension or recurrence.

Extensive operations designed to go further still by way of clearing out the whole uterus, tubes and ovaries, cellular tissue masses, and involved glands, after dissection of the ureters to accord with the method described by Wertheim, are in one's opinion absolutely without justification and unpardonable. A high, early mortality, distressing complications and sequelæ and the practical certainty of extension and recurrence have justly caused this futile procedure to be largely abandoned. Two useful features of the operation still survive and are of value in panhysterectomy for operable cervical cancer and may be employed with benefit, especially where there is but slight involvement of the vaginal vault; they are dissection of the ureters and clamping the vagina below the involved area with removal below the clamp so as to prevent dissemination of cancer cells. The dissection of the ureters need only be extensive enough to permit their recognition and safety, while if the disease is well confined to the uterus alone it is unlikely that the prognosis will be favorably influenced by dissection of the ureters, provided that due care is taken not to damage or ligate them.

Operability, therefore, is not merely a question as to the dexterity of the individual surgeon, although undoubtedly this is a most important feature in so far as the actual performance of the operation is concerned, and it is a well-established fact that the ability of surgeons performing the operation of panhysterectomy for cancer is not, and is not likely to become, standardized.

In late years some surgeons claim to have increased their operability by the employment of extensive extra-uterine dissections, and by the preliminary use of radium or X-ray, but such increase does not feature the work of most surgeons. It may, however, be conceded that experience intelligently checked up and applied contributes to success. As to the preliminary use of ray treatment, it is of questionable value as affecting the success of surgical procedures in precisely operative cases, or even doubtful ones, as shortly following its use the surrounding tissues do not present a favorable field for dissection, while a month's delay following the treatment by radium, unless, perchance, the cancer cells are rendered completely inert, may be detrimental. In non-operable cases if ray treatment results in any marked improvement, it is probably better to carry on than to attempt to perform an ex-

tensive and dangerous operation which necessitates dissection through tissues previously and perhaps still infiltrated with living cancer cells. Results of such heroic procedures do not in most cases justify their adoption.

To attempt to increase operability by operating in cases in which there is extensive extra-uterine involvement and using post ray treatment, hoping to destroy what is inevitably left of the disease, is a procedure which is unsurgical, and without justification.

Personal experiences and observations have induced me to put a very narrow limit on the operability of uterine cancer. In the vast majority of cases the thin-walled cervix is the part involved. When the disease is confined to the body of the uterus the range of operability is greater in proportion to the number of such cases observed, though the same restrictions are applicable if extra-uterine extension, which is usually more delayed, has occurred.

One has performed a considerable quota of the heroic type of hysterectomy for cancer and with fair or even good immediate success, but when one has studied the subsequent progress of many of these cases one is forced to face the query, "Was it worth while" and a distinct, though not too decisive, "No" is the answer. One can, however, look back with some satisfaction upon the small proportion of cases in which some effort was required to establish an early diagnosis and precise operability. Some of these are alive and well for periods ranging up to fifteen years. Some have died of intercurrent disease, or cancer of other organs without signs of local recurrence, while some others have, contrary to one's expectations, suffered from early recurrence.

Although dotted with clouds, such is the only spot of real brightness in the whole surgical story. Early diagnosis, precise operability, surgical dexterity, and due regard for the patient's best interests, constitute its substance. Relative and increasing brightness abounds in other well-selected methods and well-directed attempts to cure in early cases or to relieve when definite prospects of cure do not exist.

One is not yet convinced that the solution of the cancer problem will be found in radium or X-ray, or even that such treatment is founded on definitely scientific principles, but so long as a fair proportion of benefit can be attained by its use without undue risk, it should be looked upon as a decidedly important adjunct working against complete defeat.

It is recalled that attempts at cancer cell fixation and possible destruction were employed in inoperable cases many years ago by the injection of pure alcohol into the diseased uterine wall and the surrounding tissues, the futility of extensive surgical procedures being duly recognized.

Inevitably some future generations will have access to some simple and effective cure for cancer, and it may be that when its cause is discovered, prophylactic measures will largely diminish its incidence, a state for which we earnestly hope.

Meantime we have to acknowledge a very large measure of defeat, but we must carry on without conceding any tenable ground to the enemy and continue to reconnoitre for means or a place of vantage to renew our attacks, and press on to the final victory.

As previously stated there is theoretically a stage in every cancer of the uterus when hysterectomy is applicable, and permanent relief might be attained. Considering that the average duration of all cases untreated is approximately two years, this stage is of necessity a fleeting one, and if advantage is to be taken of it a much greater degree of vigilance must be exercised. It is true that, as also stated previously, recognizable symptoms may not antedate the stage of inoperability, but too often early symptoms reported to the physician do not engage his sufficient attention, in which case he is not without blame, while more frequently women fail to take notice of symptoms until the stage of operability is passed.

It is necessary then that in all cases in which the slightest possibility for cancer of the uterus exists, the greatest care should be taken in establishing the history and in the subsequent investigation of the case. Early diagnosis generally precludes operability.

Hæmorrhage is undoubtedly by far the most common earliest symptom. As it is of the ulcerative type and beyond the control of the uterine muscle it is necessarily irregular and without definite periodicity. Amounts are small, seldom large. If the menopause has not been passed a careful enquiry will elicit some departure from the woman's normal type of menstruation and in every case without alarming the patient, it is best that the physician should have it in his mind that the condition is cancer until he can satisfy himself beyond a doubt that it is or is not.

It should be emphasized to the highest degree that pain is not an early symptom of cancer of the uterus, and that its

incidence reduces precise operability by almost 100 per cent. as the surrounding tissues are invaded.

Discharge seldom precedes hæmorrhage as a symptom except in some cases of cancer of the body, and if present it is not offensive in the early stages.

Easily recognizable constitutional changes are lacking until later on and do not feature in early diagnosis.

The problem of early diagnosis therefore narrows itself almost to the investigation and interpretation of one symptom, namely, some slight bleeding after the menopause, or a departure from the normal individual type of menstruation, usually manifested by slight, non-periodical bleeding, and it is incumbent on the physician to exhaust every possible means at his disposal to investigate the cause before instituting treatment. Failing to establish a diagnosis or not having the facilities or equipment for complete, even microscopic investigation, he should seek specially skilled assistance without waiting for time to make the diagnosis easy and too late.

For generations women have entertained the idea that irregular bleeding about the time of the menopause has no particular significance, whereas in the vast majority of cases it should be taken as a warning to sound the alarm and undergo a thorough examination for discovery.

Also it has been thought that cancer of the uterus was only a menopausal disease, whereas it is frequently observed between thirty and forty years of age and somewhat less frequently between twenty and thirty. The range of age incidence is from twenty to eighty.

In order to aid in dealing with the whole problem with a somewhat greater degree of satisfaction, it would seem fitting that some more active propaganda be carried on amongst women and their organizations with the object of disseminating more information as to early symptomatology of cancer and the absolute urgency of its early recognition and institution of treatment if success is to predominate over failure. One might even go so far as to suggest the inauguration of some means for making it possible and a practice amongst women to submit to regulated periodical examinations. Until such time as women are forewarned and forearmed against this terrible disease and manifest a more ardent co-operation in our attempt at solution of the problem, we cannot entertain any great hope for improvement in our results.

Such statements as one has made in the foregoing paragraphs are based entirely upon personal experience and obser-

vation. They are the result of one's present convictions and as such are subject to change, even without notice. As to figures, they have been purposely omitted as in one's opinion there is no disease in which reliable statistics are more difficult of access and for reasons which are obvious. Any disease which is so common and in which the mortality is 100% if untreated and only yet a little less if treated, and in which so many forms of treatment are applied and by so many of all the varying degrees of skill, is not likely to be recorded in statistics which are either reliable or conclusive.

One's personal experience is the result of private practice and an active participation in the work of the Department of Gynæcology at the Toronto General Hospital for a period of nearly twenty years. Perusal of the records of one's own cases and of those at the hospital, for which latter one is indebted to Dr. Cosbie for his assistance in tabulating, only serve to substantiate one's opinions.

Recent literature is not lacking in statistical reports from various sources and although some are slightly more optimistic than the majority, the spirit of pessimism is distinctly noticeable, but despair is lacking.

Early diagnosis must be our watchword. Success can only be attained by attacking the enemy before it "digs in" and becomes entrenched.

Surgeons acknowledge that they are powerless in inoperable cases and welcome ray treatment as the most effective palliative measure known to date and should it transpire that such therapy will show better results in so-called operable cases than surgical procedures, the knife will gladly be laid down and its use abandoned. That ray or other treatment will soon permit us to do this in uterine and other cancer we devoutly pray.

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Therapy and its Future

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The only means we have of judging what the future has in store is to review the history of the past and to form judgments concerning the present tendency or drift. The history of therapy is the history of medicine, for medicine began with therapy.

Historians are gradually collecting for us the data concerning the earliest therapeutic efforts. The history of the

earliest medicine shows of what a jumble these efforts consisted. With the dawn of intelligence the sympathy which was gradually evolved through the sense of pain led the primitive man to attempt to relieve the pain of his fellows.

Disease is as old as man—it is the knowledge of disease that is recent. In the fiercer physical struggle for existence which must have characterized the life of our primitive forefathers, external wounds and manglings, as well as physical injuries due to exposure to the weather, to extremes of cold and heat, must have been common. Crude surgical procedures evolved by herdsman or shepherd began to be applied to man. Of the nature of disease in general and particular the ghost of a true idea did not exist. Obscure diseases were regarded as instances of demoniacal possession. Prayers, chants and sacrifices to healing gods were universal. Devils were exorcised chiefly through the medium of priests. The priestly art and that of the physician were often combined. In China, in India, in Chaldea, in Egypt, the development of early medicine followed the same fundamental principles, though each country manifested special peculiarities. The medicine of the Greeks interests us as much as any. Philosophers all, with an intense longing for the good, the true, and the beautiful, they have left behind them records which, in many respects, make modest even the reader of to-day. In Heraclitus, Democritus and Empedocles, and above all in Hippocrates, we meet with much that is practically good in modern medicine and philosophy, especially as concerns the individual life, the ideal development of the personality. Though almost entirely ignorant of the nature of specific diseases, the Greek physicians had accumulated an account of symptoms and conditions and therapeutic armamentarium that surprises the modern who for the first time reads his Hippocrates. The treatment of fractures and dislocations, the trepanning of the skull, the tapping of the abdomen and chest, the mode of dealing with hernia show us how daring they were in surgical measures. Had they known how to control hæmorrhage, who can tell what operations these cool-headed Greeks might not have devised? They were far less happy in the more difficult field of internal medicine. Concerning the therapy of internal diseases, Hippocrates had many sound principles, and described some good practice. He recognized the healing power of nature and urged his followers to aid and follow nature. In Hippocrates can be found the tenets of many of the famous

schools which have followed him. The principles of *Contraria contrariis* and that of *similia similibus* are both in his pages, but wiser than some who came after him he limited himself to neither. "According to its kind and the circumstances underlying it, a case must sometimes be treated by agents acting unlike the disease; in another case, on the other hand, the treatment must be taken by agents acting similar to the disease. The reason for this lies in the weakness of the human organism." Perhaps the strongest part of the therapy of that day was in the emphasis laid upon diet, gymnastics, bathing and mode of life in general.

Real progress in therapy dates from the time when natural sciences became an exact study. Histology developed with Bichat; the cell doctrine with Schleiden and Schwann, the pupils of the celebrated Johannes Muller. The French and the Germans became enthusiastic for pathological anatomy. Rokitansky counted his autopsies by thousands. The older physicians like Sydenham and Bœrhaave found worthy successors in Louis, Schonlein, Franke, and Wunderlich.

Virchow's cellular pathology set up an entirely new viewpoint whence disease-processes could be observed. Charles Darwin's work on the "Origin of Species," Herbert Spencer's philosophy and Huxley's researches in comparative anatomy stimulated investigators in all sciences to examine into the evolution of phenomena, to consider the order of events in organic processes. Enormous strides continued to be made in physics and chemistry, and the new facts discovered in these branches permitted of the development of physiology. Improvements in the microscope and in microscopic technique led to a deeper penetration into the mysteries of histology and microscopic anatomy, normal and abnormal. New instruments of all sorts were devised. Auenbrugger's percussion and Lænnec's auscultation revolutionized physical diagnosis. The ophthalmoscope, the laryngoscope and the speculum had much to do with the establishment of the specialties of ophthalmology, laryngology and gynæcology.

In the fight against infectious diseases a great victory had been won in the discovery of vaccination by Edward Jenner. Later on, Henle's ingenious speculations concerning the nature of contagious diseases set many great minds in motion. With Pasteur and Koch came illumination. The infectious agent in the majority of infectious diseases is now

known, can be cultivated in pure culture, and can be utilized in animal experiment.

Physiological and pathological chemistry have been unveiling the mysteries of the fluids and solids of the body; pharmacology and toxicology are investigating the influences of drugs and poisons upon these. The application of Lister's happy idea with regard to wound infection, aided by the American-born boon of anæsthesia, and a bloodless technique, totally changed the aspects of surgery. Wound infection, if not entirely an event of the past, has been enormously reduced. The holiest places of the body are to-day invaded by the surgeon's knife; the abdomen, the thorax, the joint cavities and even the brain are frequently and fearlessly explored. The heart, the last organ of man to be made accessible to surgical treatment, can now be sutured with success.

As a result of development along so many diverging lines the study of modern medicine is concerned with a field so wide that he who glances over it cannot fail to be appalled by its magnitude. Physiology, for so long interested in the hydraulic principles of the circulatory apparatus and the muscle-nerve preparation, is being diverted into new channels of research. The oxygenating and reducing processes which occur in the body, the various stages of anabolic and catabolic metabolism, the phenomena of secretion and excretion, the inter-relations of the various bodily activities, the functions of the different neural complexes, mechanisms of defence and adaptation—these are some of the passages along which physiologists are navigating.

Our ideas concerning inflammation have been so much modified that we are advised by some of the ablest pathologists to give up the term altogether. The nature of inflammatory exudates is still under discussion; what elements are of hemic and what of local origin are disputed; the great cleft between the acute inflammations and the chronic processes associated with production of new connective tissue is still unsatisfactorily bridged. The etiology of tumors, as yet unsolved, stimulates the embryologist on the one hand and the parasitologist on the other to renewed exertion.

We have some reason to be proud of our present status with regard to public hygiene. There never was a time when the general public were more industriously educated concerning the importance of hygienic measures than at present, never a time when the laity were more thoroughly exercised over this topic.

The present position of personal hygiene is a subject upon which we have less reason to congratulate ourselves. In principle we know much, in practice we do but little. Concerning climate, fresh air, diet, clothing, bathing, work, rest and recreation there is perhaps less dearth of information than negligence and inattention in performance. We behave hygienically when we are forced to do so, but not as a well-planned order of life. Above all, on this continent we have as yet to learn how to live, and the problem here is less simple than elsewhere, for life here, especially in the great centres, is life at its most complex. Nowhere else is the strain so great—nowhere else does it so rapidly increase in tension. It must be a nervous system other than that which has been and that which is that will stand it. That nervous system may be now evolving, but in the meantime the unfit are succumbing in numbers ever more alarming. Moderation in all things and elimination of the non-essential from our lives would do much to tide us as a race over the transition period.

Perhaps the most significant movement at present observable in medicine is the beginning of the application of the newer ideas of physics and chemistry to the solution of biological questions.

Compared with the brilliant achievements of the surgeon, the therapeutic efforts of the physician are felt by most medical men as well as by the laity to be somewhat disappointing.

The reaction against the use of drugs together with the development of the expectant method of treatment permitted of a more accurate study of the natural cure of the disease than was before possible. Consistent homeopathists who pushed their minimal dosage to such a degree that any conceivable drug was prevented did much, though unintentionally, to illustrate the healing power of nature unaided.

What the future of pharmacotherapy will be who will be rash enough to judge? That it will be great, seems certain. That it cannot soon be great, seems sure. Synthetic chemistry has supplied us with a host of new bodies for experimentation. Only a very small percentage of these have thus far been found to be of value. Antipyretics, analgesics and hypnotics especially are being multiplied. They have to be slowly tested on animals, then on healthy human beings, and last of all on human beings in diseased conditions, before their actual value can be ascertained. The effects of drugs like acetone-chloroform and urethane astonish us, however, and whet the appetite for further discovery.

No single system of therapy is likely soon again to hold general sway. The revival of organotherapy or opotherapy as the French designate it, is a marked feature of present treatment.

In the struggle against infectious diseases a rapid extension of the powers of the physician is observable. The resistance of human beings as a whole is being increased not only by the slow method of natural selection, but by a more rapid mode through personal hygiene. Prophylactic inoculations have been multiplied since the work of Pasteur. The cholera inoculation, that for pest and that for typhoid are valuable. Flexner, in Philadelphia, is now experimenting with a prophylactic against the bacillus dysenterie, so deadly in its effects in the Phillipine Islands and Japan. The introduction of Behring's serum-therapy in diphtheria has undoubtedly greatly reduced the mortality of that disease; indeed, diphtheria is now scarcely a disease to be dreaded. Aside from the serum against diphtheria, however, there is as yet little of practical value to acknowledge from this side.

The antidiphtheritic serum is an antitoxic serum. That introduced against tetanus is also an antitoxic serum. To be ranked with these two is probably also Calmette's serum against snake poison. Tetanus serum is only preventive, not curative, possibly owing to the fact that the antitoxine injected subcutaneously or into the blood cannot reach the toxine when once the latter has combined with the protoplasm of the nerve cells. Even intracerebral introduction of the antitoxine is not fully satisfactory for obvious reasons. All the other sera which have been introduced, namely, those against cholera, the streptococcus, pneumococcus, the bacilli of plague, anthrax and typhoid fever are not antitoxic sera but antibacterial sera. They do not neutralize the poison which the bacteria produce, but have the power of killing the bacteria in the body of the patient and of dissolving them up. Not a single one of these sera is as yet practically useful as a therapeutic measure.

Ehrlich's studies make it probable that with the antibacterial sera at least two bodies are necessary for successful action: (1) the *inter-body* or *immunizing body* and (2) the *end-body* or *complement* (formerly called *addiment* by Ehrlich). The latter is present in normal serum and is the true dissolving body, but it can only act when it is bound to the bacterial cell by means of the immunizing body. The antibacterial sera are rich in the immunizing body. It may be possible that they are insufficient owing to there not being

enough of the end-body present. Wasserman is now making experiments in this connection; he hopes that by increasing the amount of end-body or complement available that the antibacterial sera may be rendered valuable in the treatment of disease in human beings.

From what has been said it is obvious that we have no reason to be discouraged as regards the future of therapy, but rather cause for hope and enthusiasm. We have learned the secret of progress and the formula for daily action. The secret of advance lies in the consciousness of the fact that it is the orderly application of the well-trained intelligence to medical problems that alone yields valuable results—not the haphazard guesswork of the ignorant and untrained mind. Prolonged technical education and systematic research lead to therapeutic advance.

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BUSINESS ADDRESS, 61 Queen St. East, Toronto, Canada

Editorial

Twenty-two Years After

Elsewhere in this issue appears a synopsis of an address by Prof. Barker before the Ontario Medical Association, and published in the CANADIAN PRACTITIONER, in 1900, in which he reviewed briefly the history of therapy and outlined the probable paths of future progress. It is interesting to glance over the achievements in the prevention and cure of disease since this address was delivered, and to see how far actual progress has borne out expectations. The progress of surgery, though great, has relatively been less rapid than that of prophylaxis, internal medicine and other non-surgical measures.

The discovery of the spirocheta pallida, the development of serology, and its application to the diagnosis and therapeutic control and the introduction of the intravenous use of arsenical preparations and other diseases due to a similar type of organism have revolutionized the treatment of syphilis. As an outgrowth of these measures also we have had the development of intraspinous therapy, which has furnished a more effective means of attacking such previously hopeless conditions as

tabes and general paresis, and made the management of tetanus and poliomyelitis less hopeless, especially in early cases.

The control of typhoid fever and tetanus during the Great War is striking evidence of the advancement in our methods to prevent these diseases.

The discoveries of the X-ray and radium and their application in the treatment of many diseases has been a wonderful addition to our therapeutic armamentaria. The application of these measures in the treatment of malignant tumors has already accomplished some astonishing results, and gives a more hopeful outlook for the future than the most sanguine might have prophesied twenty-two years ago.

The ravages of tuberculosis have been stayed in a manner that could scarcely have been anticipated, and the educational campaign, and the more effective state control give grounds for hoping that increasing success may be attained in dealing with this scourge of our civilization.

The organization for child welfare, or prenatal clinics, the medical inspection of school children and other measures for the conservation of infant life have been fruitful in the field of preventive medicine. The development of our knowledge of focal infections and its application in treatment is one of the most substantial contributions to practical medicine during the period.

The investigation of cardiac arrythmias by Mackenzie Lewis and others and the better understanding of the use of digitalis in their treatment have been of much practical importance and in quinidin it is hoped that we have a useful ally of digitalis.

In the field of endocrinology and our knowledge of the autonomic nervous system there has been a flood of light, illuminating many previously obscure conditions. The investigations by Gaskell and Langley of the sympathetic and para-sympathetic nervous system, which seemed at the time to have so little application to practical medicine, and the investigations of the influence of the emotions by Pawlow, Cannon, Crile and others, have afforded an entirely new conception of the inter-relationships of the endocrine glands and the nervous system, thus enabling us to manage more intelligently the important diseases due to disturbance of these structures.

In the field of opotherapy, we have had the introduction of adrenalin, pituitrin and lastly—and if promises are realized, perhaps more important than either—insulin. The dis-

covery of the importance of certain accessory food products, the so-called vitamines, and the application of the knowledge of them in the management of beri-beri and other deficiency diseases has given a new impetus to the study of nutrition of the greatest moment, and promoting the groundwork for a scientific system of dietetics. If the remarkable results obtained by Banting, Best and MacLeod, of Toronto, in their experiments with insulin, and its apparently successful use in the treatment of human diabetes are substantiated by further experience the discovery will rank as one of the most important in recent years.

Lastly one may refer to the wonderful results obtained by Marine and others in the preventive treatment of goitre in animals and humans by the prophylactic use of iodine.

The contributions of Ambrose Stanton, an old Trinity graduate, to the elucidation of the etiology of beri-beri, and the recent discovery of insulin, before referred to, are especially gratifying as evidence that Canada has contributed substantially to the progress of therapy which Barker prognosticated twenty-two years ago. In forecasting the future progress of therapy a happy omen is the disappearance of therapeutic nihilism which for so many years paralyzed effort.

Deep X-Ray Therapy

As it is now over three years since the "new" deep X-ray therapy was first announced from Germany a few cursory remarks regarding the present status, particularly in view of the original claims, might be of benefit. We were led by various scientific articles and reports to expect cures of all malignant disease, especially those of the breast and uterus, in at least eighty per cent. To-day this has been greatly modified so that even the most enthusiastic claim only thirty to thirty-five per cent. in which the clinical picture changes. The word cure is not used so frequently.

In justice to the method it must be admitted that it has furnished an impetus for more intensive research into the biological reaction of living tissue to the ray. We must remember that up to the present the biological aspect has not received attention proportionate to its importance. We are still ignorant as to the result of a given exposure upon a given growth. Certain malignant growths which should have shown a favourable response have taken on a new impetus

and shown rapid extension. Is such a reaction due to a stimulating effect upon the malignant cell, or is it due to the destruction of some property of the normal tissues guarding against the extension of the growth or is there some unknown phenomena called into play whose existence we do not suspect? These points are not known and before the final word is said much hard and tedious work both by the microscope and test tube will have to be performed, after which we hope another Virchow will arise who will correlate the whole phenomena.

Until recently radiologists were ignorant as to the character of the X-ray beam, its wave length, penetration, etc. They now have equipment within their grasp for establishing these points for each tube and machine and no treatment should be undertaken without this data. No physician would prescribe morphine or strychnine without knowing the strength of the preparation. Unfortunately we fear that many are entering this field of deep X-ray therapeutics who are improperly equipped either in apparatus, training, or knowledge, evidently forgetting that they are using an instrument capable of causing insufferable burns or death. Such cases have occurred. They are ignoring the fact that the penetrating rays are not always harmless or efficacious.

We feel that the advent of this deep therapy has, however, been a distinct advance as more uniform results are obtained and it has demonstrated the necessity of combining physics and medicine as probably no other specialty has done. We hope that this will continue and that the field of biological chemistry will also be studied so that more information will be obtained regarding the reaction of the corpuscles and serum from their exposure to the ray. At the present time this latter phase has not received the attention due to its importance.

Standardization of Hospitals

A conference of the hospital officials of Ontario was held in the Western University Medical School, London, October 16th, under the auspices of the American College of Surgeons. Among those present were: Dr. George McNeil, Dean of the Faculty of Medicine, Western University, and Chairman of the Ontario section of the College, Dr. Franklin H. Martin, Director-General of the College; Dr. M. T. MacEachren, Associate Director for Canada; Dr. D. A. Craig, Commissioner Canadian Red Cross Society, Nova Scotia; Rev. C. B. Moul-

inier, President of the Catholic Hospital Association, and others. The standardization programme as relates to the small hospital was explained.

This question has been discussed during the last few months in Ontario chiefly through the work done by Dr. MacEachren. As there has been some confusion arising out of the addresses and discussions, we desire to state that Dr. MacEachren is a Canadian, born in Canada and educated in Canada. He graduated M.D. from McGill University in 1910. After serving about one year as house surgeon in the Royal Victoria Hospital, Montreal, he took a post-graduate course at Johns Hopkins, and on his return to Canada was, for a time, Superintendent of the Montreal Maternity Hospital. Going from there to Vancouver, he was appointed Superintendent of the General Hospital in that city in 1913. After serving in that institution for nine years he was offered the position as Director-General of the Victorian Order of Nurses of Canada. It is expected that this will require more than one year to accomplish. He was also requested by the American College of Surgeons to investigate the conditions in various parts of Canada.

He has delivered a number of addresses before societies and different hospital staffs, including one delivered at the last meeting of the Ontario Medical Association at Niagara Falls.

Among his deliverances causing most discussion were his addresses in Stratford and Brantford in August. Among the main points stressed by him were the following:

1. The doctors in hospitals should be organized as a definite group.
2. Membership restricted to doctors of worthy character.
3. Division in fees prohibited.
4. Staff meetings at least once a month to discuss cases.
5. Accurate and complete records to be kept.
6. Adequate laboratory facilities available.
7. Staffs and boards of management should work together.

He considered that two of the most pressing needs of the smaller hospitals were a pathological laboratory and a proper system of keeping records.

Some objection has been raised to an association in the United States conducting any investigation of hospitals in Canada. It is apparently not understood that the American College of Surgeons was organized for the United States and

Canada. Probably the recent meeting in London, Ontario, will clearly demonstrate that the College belongs to both countries of North America.

The Medicinal Treatment of Chronic Intestinal Stasis

It is somewhat curious to notice how views as to the bad influence on health caused by chronic intestinal stasis have changed. At one time and not long ago the majority of medical men pooh-poohed the suggestion that this condition was the *fons et origo* of a variety of diseases and states of ill-health, and the advocates of the theory were laughed to scorn. Now opinions of medical men seem to be generally veering to the view that there are almost a multitude of diseases and complaints which have their source in chronic intestinal stasis. *Dementia præcox* apparently has been traced to the toxemia brought about by chronic intestinal stasis. Several well-known ophthalmic surgeons attribute certain forms of eye disability to the same cause and so on and so on. Moreover, it was thought by many who recognized the gravity of long continued stasis on account of the diseases it might give rise to, that it was practically impossible to treat sufferers with any hope of success by medicinal means. When the condition of the patient became sufficiently serious, operation was the only alternative. There was no such thing, it was said, as an effective intestinal disinfectant. Neither was there, but according to Sir W. Arbuthnot Lane, such a bactericide for the alimentary canal may possibly have been discovered by Captain Ainslie Walker in dimot, a benzine derivative. Sir Arbuthnot Lane says that it has afforded very beneficial results in the many cases in which he has employed it. It may be said that Sir Arbuthnot Lane strongly emphasizes the point that medicinal preventive means should always be employed in the treatment of intestinal stasis before resort is had to operation. It is certain that no therapeutic treatment would be as effectual as intestinal antisepsis. If an intestinal antiseptic, even if fairly effective, has been discovered, it should provide a reliable mode of preventing the development of intestinal stasis.

Professional Secrecy

With reference to professional secrecy, the *British Medical Journal,* May 20, 1922, quotes the Hippocratic Oath. The clause of the oath dealing with this matter states: "Whatever in connection with my professional practice or not in connection with it, I see or hear, in the life of men, which ought

not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret." The writer points out that in several ancient MSS. of the oath the Greek word, ἐκκαλέεσθαι (divulge), is replaced by the word, εκλαλέεθαι (to babble about).

It is interesting to note how far the use of the oath has been maintained in the Medical Colleges of Great Britain. In four Scottish Universities only is the Hippocratic traditional formula preserved. At Aberdeen it is very briefly summarized by an obligation, taken at graduation, from which, however, the question of professional secrecy is omitted. At St. Andrews the formula closely follows the original Hippocratic oath, but, in the clause regarding secrecy, the wording runs: "Whatever during my attendance I may have seen or heard, *which it would be inexpedient to divulge*, I will keep silent regarding it." At Glasgow there is a declaration summarizing the oath, and the clause on secrecy runs: "I will keep silence as to anything I have seen or heard while visiting the sick, *which it would be improper to divulge.*" Edinburgh alone preserves still an old-time Latin formula by which the graduate promises that he *will not make public without due cause* matters that he may have seen or heard in practice.

The Academy of Medicine, Toronto

The first stated meeting of the Academy of Medicine, Toronto, for the year 1922-23 took place on the evening of October 3rd. In accordance with the custom that has now been established for some years, the Annual Academy Dinner was held preceding the meeting, at which some one hundred and seventy-five fellows were present. After dinner, the President, Dr. W. H. Harris, delivered his inaugural address,—published in this issue—a more than usually thoughtful appeal for a very broad and conscientious attitude on the part of the profession towards its duties to and its relations with the rest of the community. The address was distinctly a compliment to the fellows of the Academy in its fine construction and phraseology and literary quality, and in the seriousness with which the speaker treated his highly important topics. Reference was made to the loss the profession had sustained during the summer in the death of Professor J. J. MacKenzie. A memorial was presented by Dr. H. B. Maitland and directed to be placed on the minutes of the Academy. The scientific address was delivered by Dr. Reginald Morton, of London, England, an old graduate of Trinity Medical College, who

spoke on recent advances in X-ray therapy. A synopsis of his paper will appear in the next issue. Short addresses were given by Dr. F. Le M. Grasett, Dr. E. R. Secord, of Brantford, President of the Ontario Medical Association, and Dr. F. C. Neal, of Peterborough, President of the Ontario Radiological Society.

It was the consensus of opinion that the meeting was a most successful one, and promised that the coming Academy year would be full of interest.

At a special meeting of the Academy held on October 12th, Mr. Andrew Fullerton, C.B., C.M.G., Belfast, Ireland, addressed the fellows. Mr. Fullerton was well-known as a leading consultant in surgery during the war and made many friends among the Toronto men with whom he came in contact. He has come to this continent to represent British surgery at the Clinical Congress of the American College of Surgeons, held in Boston the end of October. For his address Mr. Fullerton chose the subject, "Aches and Pains of Renal Origin," which he presented in a most admirable and lucid manner.

Haileybury Fire

In the fire that swept over a large area in Northern Ontario tremendous devastation was occasioned—great loss of life; homes and business being entirely wiped out. Every class of the community suffered, and the medical men did not escape. In fact every medical man in the district lost most of his possessions. One doctor saved a bag full of instruments, and that practically represented the total saving of the seven.

They required immediate succor. In response to a telegram and without waiting, a complete set of instruments to be used in emergencies, contained in a leather obstetrical bag, was sent to the night train.

He had no trouble in getting the money and clothing from the profession, because in this respect the medical men were as badly off as any other class of the community. In a letter from one of them he says, "I believe you know I escaped with my coat, vest, boots, hat and my wife."

The response of the doctors was magnificent; five cases of most serviceable clothing were despatched during the week. The doctors and their friends sent their best, and the writer was able, through the kindness of the Red Cross, to have these articles sent to Dr. Fred Routley, director of Red Cross Relief in the fire area, who took a personal interest in seeing that they reached the medical men.

News Items

Canadian Medical Colleges

There are in Canada at present nine schools of medicine, all faculties of Universities.

University of Toronto, opened in 1843, as a faculty of King's College. Never very successful, it was closed in 1853, re-established in 1887. Victoria University joined in 1902, and Trinity in 1903. Number of members of faculty: 58 professors; 194 assistants; total:—252.

Queen's University, opened 1854. The medical faculty was separated from the University and became the Royal College of Physicians and Surgeons of Kingston, but was again united with the University in 1892. Numbers in teaching faculty, 26 professors; 24 assistants; total:—50.

Western University organized, 1881. Numbers in faculty: 25 professors; 30 assistants; total:—55.

McGill University, organized, 1824, as Montreal Medical Institution, became a faculty of the University in 1829. Bishop's College joined in 1905. Numbers in the faculty: 50 professors; 100 assistants; total:—150.

University of Montreal, organized, 1843. Laval joined, 1891.

Laval University, Quebec, organized, 1848. Total number in faculty: 31.

Dalhousie University, Halifax, organized, 1867. Total number in faculty: 49.

University of Manitoba, organized, 1883. Number in faculty: 113.

University of Alberta, organized, 1913.

Winnipeg Meeting

We had thought that only one story came from the Winnipeg meeting, and that was to the effect that in all respects the meeting was most successful. We learn, however, from an editorial in the *C.M.A.J.* that there was one matter of regret in connection with two of the sectional meetings, which did not fill their whole programmes because of the absence of certain members who promised to read papers. This failure caused

great inconvenience, and was discussed by the council. All agreed that a promise to read a paper should be regarded as a definite contract not to be defaulted without good reason.

What is Old Age?

One of our greatest *elderly* men, Richard Blandworth Angus, died recently, aged 91. The principal interest in Mr. Angus, from a medical standpoint, lies in the fact that at the age of eighty he was elected to the very responsible position of President of the Bank of Montreal. It is said that he took up his duties with great zest. As a matter of fact he was a young and vigorous man long after he reached the ages of forty and sixty. With such a man in view, and he is only one of many, it is scarcely much wonder that we are forgetting a good deal of the talk about the "chloroform age."

The Medical Colleges

For two or three years after the war the number of students in our medical colleges was what we may now consider abnormally large. In one year the freshman class in the University of Toronto was 230, or thereabout. The tremendous increase caused much surprise and, both then and now, those best acquainted with the situation do not pretend to furnish any explanation.

The numbers of the freshmen classes for this session are much smaller, as we understand it, in all the medical colleges of Canada.

In McGill University the number registered in the first year, on October 11th, was eighty straight first year medical students and ten partials.

At Queen's the number of applicants was about a hundred, and from these the Faculty decided to admit only forty men to the first year.

In the University of Toronto there were eighty-nine students registered in the first year on October 1st.

In the Western University the number registered in the first year, up to October 4th, was thirty-eight.

In the University of Manitoba the number registered in the first year was thirty-eight, on October 4th. The registrar explains that this is a transitional year, being the first year of the "new curriculum" which demands two pre-medical years in Arts and Science, in addition to five years in the course of medicine proper. It is thought that this accounts for the limited number entering upon the course this year.

McGill Memorial

A memorial in the form of a stained-glass window to three members of the Faculty of Medicine who were killed in the Great War was unveiled at McGill University, October 5th. It is dedicated to Lieut.-Col. John McCrae, author of the poem, "In Flanders Fields," Lieut.-Col. R. P. Campbell, and Lieut.-Col. H. B. Yates. Sir Arthur Currie, Principal of the University, performed the unveiling.

The American Association of Obstetricians and Gynecologists held its thirty-fifth annual meeting at Albany, N.Y., September 19th to 22nd.

Lady Nicotine

We are told by the *Oversees Daily Mail* that the Medical Correspondent of the *Times* expresses the opinion that the enormous increase of cigarette smoking among women calls for protest by the medical profession. In many instances the habit is passing beyond a pleasure and is becoming a vice.

There is no doubt that excessive smoking of cigarettes poisons the system more or less, but the *Mail* says that the excessive use of tobacco among women is chiefly due to foolishness.

It is doubtless true that excessive smoking is worse for a woman than for a man. It is stated that women have less need of tobacco than men, and, consequently, they have less craving for it. "Barrie was right when he made Nicotine a lady. Her attraction is for the opposite sex."

Medical Alumni Association

The original Medical Alumni Association of the University ceased to function in 1894. At a meeting held in June it was reorganized with the following officers: Hon. President, Dr. Alex. Taylor; President, Dr. H. B. Anderson; Secretary-Treasurer, Dr. Harley Smith; Executive Committee, Drs. B. Cornell, A. S. Tilley, J. Sheahan, J. H. Duncan, C. E. Spence, Herbert Bruce, Stanley Ryerson, F. W. Marlow, F. C. Harrison, W. H. Harris, and O. Sisley.

Sir John Gibson, B.A. '63, has given five hundred dollars to perpetuate the McCaul Gold Medal in Classics. This medal was established by the late W. H. C. Kerr, in 1886, in memory of Dr. McCaul, the first Professor of Classics and first President of University College.

Women's Medical Society

It is reported that a Canadian Women's Medical Association will soon be organized. The arrangements have been left in the hands of the following committee: Drs. Sproule-Manson, Isabel Ayer, Lilias Cringan, and Esther Loudon.

Legislative Committee on University Affairs

At the time of writing we know nothing about the work of this committee, but the following editorial note appeared in the October issue of the *University Monthly*:

"It is expected that the special committee of the Legislature appointed to inquire into the affairs of the University will commence its sittings some time during the month of October. The committee consists of: Messrs Drury, Doherty, Ferguson, Dewart, McCrae, Marshall, Watson, Swayze, and Greenlaw. It is empowered to examine witnesses under oath.

The terms of appointment are wide—"to inquire into and report to the House in regard to any matters concerning the organization and administration of the University of Toronto, including its relation with the federated colleges and with the Toronto General Hospital, and to make any recommendations which the committee desire in the public's interest."

From these terms it seems dangerous to even hazard a guess at what lines the investigation will follow. To judge by the discussions in the House which preceded the appointment of the committee it is probable, however, that considerable attention will be given to the questions of the appointment and powers of the Board of Governors and the method of appointments to the staff. It seems inevitable, too, that with the Report of the Royal Commission of 1921 still unacted upon, the matter of University finances must come up for discussion."

American Medical Editors' Association

The fifty-third Annual Meeting of this progressive Association was held at the Hotel Statler, Cleveland, Ohio, October 16th and 17th, under the presidency of Dr. Frank C. Lewis. The meeting was a great success in all respects. We quite agree with the Secretary, Dr. F. H. McMechan, who stated that American medical journalism was one of the greatest powers for good in North America.

A new clinic has been formed in Toronto, to be known as the Lockwood Clinic, with headquarters at 164 Bloor Street East. The director is Dr. Lockwood, late a prominent member of the staff in the Mayo Clinic, Rochester, Minn. With him are associated Drs. H. A. DeBrisay, C. R. Crompton, L. R. Hill, M. Moher, and H. Smith.

There are about 9,000 doctors in Canada: Ontario, 3,700; Quebec, 2,200; B.C., 800; Man., Sask., and Alberta, 1,500; Maritime Provinces, 800.

Incurable Patients in Hospitals

It is generally recognized as a fact that the ordinary hospital is not a suitable place for the incurable patient. The question came much into evidence recently in Hamilton. A man, living in the County of Wentworth, outside of Hamilton, took legal proceedings to prevent the authorities from moving his uncle, declared to be incurable, from the Mount Hamilton Hospital to the Home for Incurables. At the time of writing the decision of the Court has not been given.

In the discussion which took place it was stated that if the treatment of incurables was sanctioned, the hospitals would be filled to capacity within a short time.

Personals

Dr. Beverley Hannah, for many years on the staff of the Hospital for Sick Children, has been appointed Physician-in-Chief of the Riverdale Isolation Hospital, Toronto.

Dr. Frank Pratten has been appointed Medical Superintendent of the Queen Alexandra Sanitarium at Byron, East Middlesex.

Dr. Fred Grasett returned to his home in Toronto, after a visit to England, September 25th.

Three graduates of '17 are now located as follows:—Dr. Harold Irvine, at Brigden, Dr. Earl Berry, Toronto, Dr. A. E. MacKenzie, Stamford.

Dr. G. H. Stevenson has been appointed Assistant Superintendent, at the Ontario Hospital, London.

Dr. Jennie Smillie has been appointed a delegate to the International Conference of Medical Women to be held in Geneva, Switzerland, in November.

Dr. C. P. Fitzpatrick, M. B. Tor. '20, has commenced practice in Retlaw, Alta.

Professor Irving Cameron, after a visit to England of two months, returned to Toronto September 28th.

Dr. Elizabeth Kiteley has been appointed a Medical Inspector of Rural Schools, with residence in St. Catharines.

Drs. Charles Hastings and John McCullough, of Toronto, went to New York, September 21st, to attend an important meeting of the executive committee of the American Public Health Association.

Dr. J. W. Ross has returned from Rochester, Minn., after spending three years in the Mayo Clinic, and has for residence 17 Parkwood Avenue, Toronto, with office in Dr. Bruce's house, 64 Bloor Street East.

Dr. (Gen.) John Fotheringham returned to Toronto, October 1st, after an extended trip to New York, Chicago, Los Angeles, San Francisco, Seattle, Portland, Vancouver, Banff, Calgary and Winnipeg.

Dr. Sylvester Charlton, Mayor of Galt, was elected President of the Union of Canadian Municipalities at the convention held in August at Winnipeg.

Dr. S. G. Allwood, M.D. Trin. '02, formerly of Jamaica, is now practising in El Salvador, Central America.

Dr. James B. Hanley has opened an office at 124 Bloor Street west, and is confining his practice to diseases of the Ear, Nose and Throat.

Dr. Samuel Johnston, Chief of the Anæsthetic Department of the Toronto General Hospital, and retiring President of the American Inter-State Association of Anæsthetists, attended the Congress of Anæsthetists held in Columbus, Ohio, October 30th, November 1st. This congress is the first of the kind ever held. Primarily the Congress will be a conference on the Teaching of Anæsthesia and the Development of Anæsthetic Service in the Hospital. Dr. Johnston read a paper on the Anæsthetic Service at the Toronto General Hospital.

Dr. R. J. Hardstaff has settled in Detroit, practising the specialty of Eye, Ear, and Throat.

Dr. (Gen.) G. Sterling Ryerson spent the greater part of the summer in British Columbia, and will probably spend all the coming winter in California.

Dr. Lorne Robertson, of Stratford, went to Toronto on account of a slight illness due to throat infection, September 24th, and, after a week's rest, with some surgical treatment, returned to his home with health almost completely restored.

Obituaries

John A. Wyeth, M.D.

Dr. John Wyeth, one of the best known surgeons of New York State, died at his home in New York City, June 15th, aged 77. He is best known to Canadians through his connection with post-graduate teaching. He organized the Polyclinic Medical School and the Polyclinic Hospital in New York City, and for many years worked actively in both.

Sir Alfred Pearce Gould

Sir Alfred Pearce Gould, the distinguished British surgeon, died suddenly in London, April 19, aged 70. He was a general surgeon, but paid special attention to the treatment of cancer. He was largely instrumental in establishing the Cancer Research Department of the Middlesex Hospital.

Stephen Smith, M.D.

Dr. Stephen Smith, perhaps the most distinguished sanitarian in the United States, died August 20th, aged about 100. It will be remembered by our readers that about the time he entered his hundredth year he took a prominent part in the meeting of the American Health Association, in New York last year. The most interesting feature in connection therewith was the fact that he organized the Association just fifty years before that meeting.

William S. Black, M.B.

Dr. W. S. Black died at Merriton, June 15th, aged 89. He graduated M.B. from the University of Toronto in 1871 and spent the greater portion of his professional life practising in Oakville.

William T. Robson, M.B.

Dr. Robson, of Ilderton, died at his residence from burns received in a motor accident, August 15th, aged 71. He graduated M. B. from the University of Toronto in 1878.

Octavius Weld, B.A., M.B., L.R.C.P. (Lond.)

Dr. O. Weld, one of the leading practitioners of British Columbia, died at the General Hospital, Vancouver, September 11th. He graduated, B.A. 1883 and M.B. 1886, from the University of Toronto. He then went abroad and became L.S.A. (Lond.) 1887, and L.R.C.P. (Lond.) 1889.

After returning to Canada, he settled in Vancouver, and entered into partnership with Dr. J. M. Lefevre, one of the most prominent physicians of the West. He was very successful as a medical practitioner, and very well-known in various outside circles and was extremely popular with all classes.

J. L. Addison, M.D.

Dr. Addison, of St. George, Ontario, died October 6th, aged 81. He graduated M.D. from McGill University in 1884, and immediately commenced practice in St. George, continuing until his retirement in 1918. His active work in the profession, which was always very strenuous, continued for thirty-six years.

Samuel M. Henry, M.D.

Dr. S. M. Henry, of 138 Howard Park Avenue, Toronto, died suddenly October 8th, aged 74. He was the son of the late Dr. Thomas Henry, and brother of the late Dr. James Henry, of Orangeville.

After graduating from Victoria University in 1868, he commenced practice in Harriston, where he remained until 1916. He then removed to Toronto and practised there up to a short time before his death.

Charles S. Moore, M.D.

Dr. C. S. Moore, of London, died at his home in that city, September 26th, after an illness of about eight months. from pernicious anæmia, aged 70. He graduated in 1874, and at once commenced work with his father who had a large practice. Ten years later the father retired from practice and Dr. Charles, Jr., formed a partnership with Dr. Fred. Drake. During about forty-eight years he worked faithfully and he was reputed to have one of the largest practices in Canada. He was very successful in every way and highly respected by his patients and by the public at large.

J. B. Cosby, M.D.

Dr. J. B. Cosby, of Toronto, died at his home, October 1st.

Norman Allen, M.D., M.R.C.S., Eng.

Dr. Norman Allen, a prominent physician of Toronto, died at St. Michael's Hospital in that city, October 4th, aged 57. An operation for the removal of gall stones was performed about two weeks before, and he appeared to be making a satisfactory recovery when symptoms of tetanus arose, and his death ensued about two days later. At the time of writing the cause of infection is not known.

Dr. Allen graduated M.D. from Trinity University, in 1885, and became M.R.C.S., Eng., the following year. After returning from England he commenced practice in Toronto and was, for a time, M.O.H. for the city. He soon retired and gave his attention entirely to private practice, in which he was highly successful.

Correspondence

The Canadian Medical Association

The Editor, The Canadian Practitioner, Toronto.

Dear Sir:

Those who have read your recent editorials concerning the future of the above Association, and given the matter consideration, have come to certain conclusions regarding it.

Three factors enter into consideration; the solidarity of the profession, scientific contributions, and the financial burden.

The two former are well promoted in provincial, county and city organization, in which the third factor, namely expense, is not burdensome, since distances are not great and fees are moderate.

In respect to the meetings of the national organization, distances are great, cost of travel heavy, and members find difficulty in leaving their practices for the necessary period.

The advantage of frequent meeting is self-evident in its favorable reaction upon the profession. But the three classes of organization above named are ample to promote unity and stimulate scientific interest. These local and provincial societies give to members of the profession about as much as they can assimilate. And this is amply supplemented by the voluminous current medical literature. Again, very few average doctors can afford either time or money for the long trips to the remoter places in which the Association often holds its meetings. They feel that membership in the local and provincial societies is not only sufficient professionally, but all they can afford in time and fees.

One might say just here that it would be a desirable innovation if one fee could be made to cover membership in all the medical societies and associations, each to share a fair pro rata.

The Canadian Medical Association serves a purpose by maintaining a certain amount of reciprocity among the various provincial and local bodies; also, incidentally giving individual members from remote places opportunity of meeting. But might it not take a suggestion from the *modus operandi* of the religious bodies, whose national general conferences,

assemblies or synods meet once in four years. At these meetings matters of the largest and broadest interest only are discussed and adjudicated upon.

The medical profession of Canada has sufficient subjects of general interest and professional importance to consider at such proposed quadrennial gatherings. The executive of this national body might be represented at the yearly provincial gatherings in order to keep in touch.

Yours truly,
SINAPIS.

Abstracts

The Treatment of Epilepsy with Special Reference to the Use of Luminal. By L. WANDER AND D. G. SAMPSON, N.Y. *Med. Jour.*, Sept. 20, 1922.

The paper opens with an outline of the etiology and a description of the character of various types of epilepsy. The first endeavour in treating epilepsy must be to prevent the onset of the attack in persons predisposed to the disease. It is difficult to carry out the hygienic treatment of epilepsy at home. It is not practicable to treat epileptics along with other public ward patients, but they should be kept with others suffering from the same disease. Suitable industrial therapy should be provided, as the discipline thus afforded is valuable in overcoming the fundamental instability of the nervous system of the epileptic. As to diet, the amount of food taken should be kept at or near the physiological minimum, and attention should be given to elimination, especially from the bowels. The only method of controlling the number and severity of the attacks rests on the properties of certain drugs to inhibit the activity of the nerve cells of the cerebral cortex. The drug most frequently employed since it was introduced by Laycock in 1857 has been some preparation of bromide. Recently a German preparation has appeared, known by the trade name of luminal, which is phenylethylbarbituric acid. Reports of its use are cited in which remarkable results were secured, but, in the experience of the writers, the effects are less striking, although quite encouraging. While the number of seizures is not mark-

edly diminished, the character of the attacks is notably altered, in that they are milder and of shorter duration. Also the mental attitude of the patient changes from one that is dull and surly, to one that is more cheerful and co-operative. No ill effects have been noted, and nothing has resulted to indicate that it is a habit-forming drug. It has, however, one unpleasant result, in that its power to inhibit convulsive seizures is not permanent. Also, in most cases, where its use is discontinued, the convulsions return with greater frequency and severity. As to dosage, it has been found that luminal in doses of one and a half grains daily may be safely given over long periods.

Selected Editorials

The Dangers and Limitations of Salvarsan

The full dress debate on salvarsan at the Berlin Medical Society, which took place on January 25th, and which is reported in *Deutsche medizinische Wochenschrift* for February 16th, was marked by a certain reticence on the part of speakers conscious of the agitation against salvarsan in the daily press and of the likelihood that admissions of failures and disasters would be relentlessly exploited by the lay critics of salvarsan. One of the speakers, Arndt, admitted that although every precaution had been taken there had been several waves of fatalities. He himself had observed only four deaths between 1914 and 1918; in 1919 he had seen none, and in 1920 he had again seen none, although he had given 24,000 injections in that year. But in 1921, during which year he had given 14,000 injections, he had had eight deaths. With regard to the frequent occurrence of acute or subacute yellow atrophy of the liver, he said that most of the patients were over 40, and that salvarsan jaundice was most common in connection with tertiary syphilis. Owing to salvarsan fatalities the dosage had been reduced, and the exhibition of the drug had been limited in the main to primary and secondary syphilis; these two precautions had practically eliminated salvarsan jaundice. He was inclined to treat almost every case of tertiary syphilis with iodine and mercury only. The

results they produced were quite satisfactory. He never gave more than 0.45 gram to men nor more than 0.3 gram to women at one injection, and his total dose for men and women was 4.0 and 3.6 gram respectively. He had often observed a change in the temperature curve as the only sign of impending salvarsan poisoning, and he took this sign as an indication for immediate cessation of treatment. Recent improvements in the manufacture and control of salvarsan were discussed by Kolle of Frankfurt. The control, he said, was becoming closer, and a keen watch was kept for specially neurotropic consignments of salvarsan by biological tests on rats. He believed, however, that the angio-neurotic complications of salvarsan preparations were mainly due to the metallic salts they contained, and as these properties could not well be tested on animals, it was necessary to test consignments of salvarsan clinically; when they betrayed these undesirable properties after the administration of small doses the particular consignment concerned would be withdrawn from the market. He referred to the detoxication of salvarsan by the addition of a 40 per cent. solution of grape sugar (*Epitome,* February 4th, 1922, No. 102), but he had grave misgivings as to the wisdom of combining salvarsan with mercurial injections. Of the various salvarsan preparations, neo-silver-salvarsan had impressed him most favourably, and experiments on animals with salvarsan alone, and salvarsan *plus* mercury, had shown him that within thirty days of infection a *sterilisatio magna* was feasible in 100 per cent., as shown by the animals' susceptibility to reinfection. But ninety days after infection not a single animal was cured. Both these speakers, it will be observed, emphasized the value of salvarsan early in syphilis and its comparative futility late in the disease. Editorial—*The British Medical Journal.*

Botulism

The first outbreak of botulism in Great Britain occurred at the Loch Maree Hotel in Scotland a short time ago and resulted in eight deaths. It is somewhat of a coincidence, and a fortunate one from the point of view of medical science, that early last year Sir George Newman, chief medical adviser to the Ministry of Health, together with the Medical Research Council, made arrangements for the fuller investigation of all food poisoning cases. As said before it appears

that this is the first case of botulism that has been known in Great Britain although this form of food poisoning has occurred in Germany and in this country on several occasions. Indeed it was first recognized in Germany. It was at one time fairly common there and in 1896 van Ermengem isolated the causative germ to which was given the name Bacillus botulinus. Up to 1906 the condition was not heard of to any extent but in Germany, and then a series of outbreaks were recorded in the United States and have continued at intervals up to the present time. However, the outbreaks have exhibited decided dissimilarity from the causative point of view in Europe or rather in Germany. The cases were always associated with the consumption of meat, so much so that the infection was given the name of sausage poisoning. In this country, on the other hand, canned or bottled fruits or vegetables, generally put up at home, have been traced as the cause. Moreover, these outbreaks, as a rule, have been confined to California or one of the Western States. California has been mainly the State in which botulism has been most prevalent. Valuable investigations on the subject have been carried out by American investigators, who have shown that there are two distinct types of toxin, A and B, and that the antitoxin of type A, for an antitoxin has been discovered, affords no protection against the toxin of type B. The antitoxin usually prepared from the goat if employed soon enough, exerts a satisfactory action. As there are different types it is obviously necessary that polyvalent sera should be used. Undoubtedly more will be learned concerning the bacillus of botulism in the near future, which by the way is a saprophytic anerobe producing its toxin outside the animal body. Science has proved already that properly prepared canned or bottled foods offer no menace. Regarding canned fruits or vegetables, the cans of which the contents are dangerous supply sufficient warning in their own bad physical condition. As for preserved meat or other foods the question calls for further investigation. The Loch Marce cases were due to contaminated food paste, and, of course, investigation will be chiefly directed to this form of preserved food. In these days when canned and preserved foods of every kind are so largely made articles of diet, it is essential that every means should be taken to render them safe foods. Editorial—*New York Medical Journal and Medical Record.*

Is Mineral Starvation a Primary Cause of Disease?

PHYSIOLOGISTS now generally concede that a demineralized diet reduces the supply of vital energy, and helps prepare a tissue-soil favorable to the growth of pathogenic germs.

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Radium Treatment of Uterine Fibroids

Experience has established the fact that radium is the best known remedy for selected cases of uterine fibroids. Uncomplicated symmetrically developed fibroids, not larger than a uterus of three or four months' pregnancy in women near the menopause, are successfully treated with radium. One thousand two hundred to one thousand eight hundred millicuries (milligram hours) of radium element, thickly screened, is advised. One thousand eight hundred usually produce no more symptoms than one thousand two hundred millicuries, and are almost certain to produce a permanent menopause, except in younger women. Re-establishment of menstruation, in our experience, has resulted in renewal of growth and recurrence of symptoms.

The radium should be placed within the cavity of the body of the uterus. One and occasionally two menstruations may follow the treatment before amenorrhœa results. Atrophy of the tumor commences about the eighth week. In four or five months the tumor may be felt as a small nodule, but has usually disappeared, or has become so small that it cannot be palpated.

Intramural fibroids are best suited for radium treatment but subperitoneal and even submucous do not necessarily contraindicate its use.

Intra-abdominal complications especially chronic infections indicate surgical treatment. When cases which are complicated with chronic pelvic infection are treated with radium, there may result re-infection and abscess formation.

The objection to the use of radium in larger tumors is chiefly the danger of mistakes in diagnosis. When radium is used the diagnosis should be frankly certain; the fibroid uterus should be one that can be freely rolled between the fingers on conjoined palpation.

Success in radium treatment necessitates production of a permanent menopause. This fact is the principal reason for use of the thick screen. The thick screen does not materially increase the amount of radium required to stop ovulation, but lessens materially the amount of necrosis at the site of radiation and thus lessens the dangers of infection and the amount of the thin watery discharge that results.

In younger women it is preferable to remove the fibroid growth by means of surgery rather than to destroy the function of the ovaries by radium.

DR. JUNIOR: "Doctor, there is just one other interesting point I had overlooked, and one you may be able to explain."

DR. SENIOR: "Well, what is it?"

DR. JUNIOR: "The old-fashioned poultices—bread-and-milk, linseed meal, and so on—always grow so cold in a few hours as to give one the creeps, almost——"

DR. SENIOR: "Exactly. Go on——"

DR. JUNIOR: "Antiphlogistine, I have observed, retains its heat for as long as twenty-four hours. How do you account for that scientifically?"

DR. SENIOR: "In this way, Doctor. Antiphlogistine, a scientific product, is the result of a working knowledge of Chemistry as well as Physics. The heat-retaining property is due to the chemical reaction which goes on during osmosis between c. p. glycerine of Antiphlogistine and the waters of the tissues. It is constant until full saturation has been reached—which averages about twenty-four hours."

DR. JUNIOR: "I see where you are right in maintaining that Antiphlogistine is not a mere 'poultice'. I had my doubts about it remaining warm for such a long time."

The limitations to the use of radium may be extended in cases of poor surgical risk.

The nervous disturbances associated with the menopause following radium, in our experience, have been about the same as those after the natural menopause. Editorial—*Surgery, Gynecology and Obstetrics.*

Population Increase in Germany and England

Before the war (1904-1913) the excess of births over deaths in the large towns—what is termed the natural increase of the population—was greater in Germany than in England and Wales—namely, as 15.1 to 11.2 per thousand each year. Since the war the ratio has been reversed and now stands as 5 to 9.5 per thousand.

In other words, while the natural increase has fallen in both countries, in Germany it has sunk to one-third of the pre-war rate (5 as against 15.1 per thousand) and in England and Wales by only 1.7 (9.5 as against 11.2 per thousand). This means that the fall in the yearly rate of natural increase since the war has been for England and Wales 65,000 and for Germany 660,000.

On these figures England and Wales, with a population of thirty-eight millions, are increasing at the rate of 361,000 annually, while the annual increase in Germany, with sixty million inhabitants, is no more than 300,000.

On the pre-war rate of natural increase our gain would be 426,000, and that of Germany 960,000. Editorial—*The Medical Press and Circular.*

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Selected Articles

Diseases of the Biliary System[1]

By Dr. Howard R. Hartman, Rochester, Minnesota.

No real advancement has been made in the diagnosis and treatment of diseases of the biliary system since surgery matured and taught that "neuralgia" of the stomach, "acute indigestion," "gastritis," "gastralgia," and so forth are not separate clinical entities but symptoms modified, perhaps, by the extragastric location of the lesion. We recognize that intrinsic gastric diseases are few and that there are many points of origin for the reflex gastric symptoms simulating disease of the stomach. Intrinsic gastric disease, as a rule, gives us less concern from a diagnostic or therapeutic point of view today than do reflex gastric symptoms. A well recorded history and a careful physical examination, supplemented by gastric analysis and fluoroscopy, as a rule, readily exclude peptic ulcer, gastric carcinoma, gastric syphilis, and benign gastric tumor as a cause of dyspepsia. There remain gastric symptoms of tabes dorsalis and those of reflex origin as a possible source of the dyspeptic's difficulty. Gastric crises are usually readily identified by collateral data. Abnormal afferent impulses somewhere in the complexity of our nervous systems stimulate abnormal efferent impulses which cause symptoms in the organ receiving this innervation. Certain reflex arcs are identified, but the efferent path may be influenced by a second, or indirectly by a third, source and one of these aberrant influences, in a broad sense, may be the patient's environment. The differentiation of these environmental reflex symptoms of the stomach and those which originate in organic disease is often most difficult. Internists are in dire need of some confirmatory laboratory evidence to aid them in diagnosis of biliary disease and any proposed procedure is welcomed whole-heartedly.

In modern surgery appendicitis and cholecystitis may be considered one, and justly so, for the appendix and gall-

[1]Abridgment of paper presented before the American Congress on Internal Medicine, Rochester, Minnesota, sixth annual clinical session, April 5, 1922.

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bladder are often affected simultaneously, or in sequence, that is, one inflammatory process precedes the origin or exacerbation of the other. Aside from their localizing symptoms they are not easily differentiated, for the systemic symptoms are a reaction to an inflammatory process and their reflex symptoms are gastric. There is one point well worth noting with reference to the reflex symptoms of cholecystitis; that is, the distress is quite prompt, fifteen to thirty minutes after ingestion, not immediately as is so often true of functional gastric distress and not two to three hours after as may happen with appendicitis, ulcer, of course, having been excluded. In order definitely to diagnose gallbladder disease one requires, besides gastric reflex symptoms, localizing symptoms. The colic of calculi can hardly be missed; the pain and tenderness of acute cholecystitis with peritonitis need little discussion. What is to be done with the severe digestive disturbances which, because of clinical data, are suspected to be of cholecystic origin? The laboratories fail us in our hour of need. Mussey and Brock have demonstrated the results of gastric analyses in cholecystitis without stones to be: achlorhydria 17 per cent., hypo-acidity 16 per cent., normal acidity 55 per cent. (20 to 50 considered as a normal acid value), and hyperacidity 12 per cent. In cases of cholelithiasis the results of gastric analysis are: achlorhydria 24 per cent., hypo-acidity 20 per cent., normal acidity 47 per cent., and hyperacidity 9 per cent. These data contain no striking aids to a differential diagnosis.

Carman disagrees with other rœntgenologists with regard to the frequency with which gall stones can be demonstrated by the rœntgen ray, and surely not all gallbladder diseases are associated with stones.

It is natural then that physicians should quite readily accept the diagnostic laboratory technic recently well propounded by Lyon to furnish data to substantiate or disprove suspicions of gallbladder disease and, perhaps, to exclude the nightmare of functional disorder. We in the Clinic have not been able to satisfy ourselves that the technic possesses any real value.

The sequence of colors representing bile from different parts of the biliary system is a most confusing problem in actual experience, because the fractioned specimens appear from the end of the duodenal tube irregularly and intermittently. The exact application to the biliary system of the law of contrary innervation is not agreed on by Crohn. Dunn

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and Connell have explained the typical play of colors, described by Lyon, in a patient who had been deprived of the gallbladder and gallducts, as owing to differences in concentrations of the magnesium salt. Bassler was unable to substantiate Lyon's reasoning that explained dark colored bile to be gallbladder bile. The color phases and their causation is being studied further by my colleagues in the physiologic laboratories. It is, I think, generally agreed that exact fractionation of the A, B, and C bile is not possible.

The studies conducted at the Mayo Clinic have convinced us that it is impossible to sterilize the stomach or duodenum and still more impossible to pass a tube into the duodenum through the mouth, which swarms with bacteria after any preparation, in a sterile state. We were able to grow bacteria from the mouth and those obtained by the tube in dextrose brain broth to which had been added various strengths of the antiseptics recommended for cleansing and sterilizing the mouth, esophagus, and stomach. Bacteriologically, the principle of the process is false. Bile from a patient with chronic cholecystitis is sterile because the infection and reaction of the disease is in the wall of the gallbladder. In acute cholecystitis or in acute exacerbations of chronic cholecystitis, it is possible for the bile to become infected from the wall of the gallbladder, but only then. Organisms were found in the bile in only 19 per cent. of the gallbladders removed at operation (Drennan). Bacillus coli predominated, and as this is probably a secondary infection, we can hope to obtain diagnostic bacteriologic data in only nineteen of 100 cases of gallbladder disease by Lyon's technic.

The physical, cytologic, and bacteriologic data obtained by Lyon's technic at the Clinic did not agree with those from analysis, made in the same way, of bile obtained at the operating table. Further, at operation it was impossible to demonstrate contraction or movement of the gallbladder whether diseased or not when magnesium sulphate was applied directly to the duodenum. General anæsthesia, however, may have interfered with the reflex arc. One experiment under local anæsthesia failed because of lack of co-operation.

The real value of Lyon's technic at present is its stimulating influence on further physiologic study of pancreatic and hepatic function. We are still relying on a carefully taken and detailed history, and keeping an open mind to the idea that unexplained definite dyspepsia may be a symptom of a diseased abdominal organ; often this organ is the gallbladder, and with

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the exception of the appendix and pancreas other organs in a group of chronic conditions are practically ignored. Can we expect more illuminating results in acute cholecystitis from this technic? I think not, because it has not been definitely proved in man that magnesium sulphate or any other substance brings about relaxation of the sphincter of Oddi and contraction of gallbladder causing flow of bile. Crohn in a recent communication calls our attention to the fact that the late Dr. Meltzer never made such a claim. In the laboratories of experimental surgery in the Clinic, Mann has not been able to demonstrate the action of such a mechanism. The burden of actual proof of the value of Lyon's transduodenal drainage still rests on its adherents.

The fundamental hypothesis, that cholecystitis is an ascending infection from a duodenitis caused by ingested bacteria, does not agree with our ideas of the origin of cholecystitis, for we believe in the teachings of Rosenow that it is a hematogenous infection, coming from some occult focus. Graham and Peterman agree with the idea of a hematogenous origin of cholecystitis. In a recent article they emphasize that the greater frequency of cholecystitis develops secondarily, by way of the lymphatics, to a hepatitis that originated from a hematogenous infection. The portal vein, usually, and hepatic artery are the channels by which the infection reaches the liver. This explains the frequency of occurrence of cholecystitis associated with appendicitis, by assuming that the infection in the appendix reaches the liver by way of the portal circulation than setting up a hepatitis that leads to a cholecystitis. This was proved experimentally.

A review of tabulations, in which the results of analysis of bile obtained by the Lyon technic is compared with the pathologic findings at operation or at necropsy, is most confusing, because rarely are findings in two cases of any one pathologic condition similar enough for the recognition of that condition. Further findings in examination of the bile obtained at operation from the gallbladder did not tally with findings in examinations conducted in the same manner on the bile obtained by the Lyon's tube, supposedly gallbladder bile. Not alone was this variation demonstrable in the physical and cytologic findings, but the bacteriologic data were as bizarre as the rest.

It would, therefore, seem that in order to diagnose cholecystitis we must still rely on our old methods which can briefly be summarized by saying that dyspepsia characterized by accu-

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mulations of gas in the upper abdomen, belching, and sour regurgitation occurring quite promptly after a hearty or indigestible meal or after the ingestion of some specific food, such as raw apples, cabbage, or greasy foods is quite as characteristic of cholecystitis as typical gallstone colic is characteristic of gallstones. If, in addition, there is local tenderness, the diagnosis is better established. Gallstones themselves do not so readily produce this type of dyspepsia, but when cholelithiasis is associated with an active cholecystitis these gastric symptoms are present. Cholelithiasis needs little or no consideration.

Only one form of treatment, that is, surgery, will accomplish cure and should be instituted if the symptoms warrant it. One may temporize with an attack of cholecystitis as with appendicitis, but the cure lies in cholecystectomy as the cure of appendicitis lies in appendectomy, for we are dealing with an inflammatory process in the walls of the organs.—*Annals of Clinical Medicine,* Sept., 1922.

Selections

Blood Transfusion and the Treatment of Anæmia.

L. Lichtwitz (*Klinische Wochenschrift*) commends Oehlecker's method of blood transfusion as worthy of more general application in surgical clinics. He discusses the serological tests and other precautions to be observed before the operation and the application of transfusion to the treatment of pernicious anæmia. Lichtwitz considers that transfusion effects a more rapid and lasting improvement in these cases than any other method of treatment, particularly before the onset of chronic sepsis of enterogenous origin, giving rise to endocarditis lenta and other complications. He suggests that an "etiological moment" governs the condition and that an improvement in the general blood condition of the patient may prevent the advent of sepsis. He considers that the transfusion of a large quantity of blood (500 to 1,000 c.cm.) acts chiefly by "substitution therapy," but that a greater and more prolonged improvement results from the stimulation of the blood-producing organs. He gives details of several cases which show that the transfusion of small quantities of blood

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(10 to 40 c.cm.) have a remarkable effect on the recipients' blood state in a few hours. In one case of aplastic anæmia, two hours after the transfusion of 20 c.cm. of blood, the erythrocyte count rose from 0.96 to 1.7 million; at that time no normoblasts were seen. After four hours a distinct leucocytosis was observed, and after a second transfusion (at the end of fourteen days) of 40 c.cm. of blood the erythrocyte count rose from 1.5 to 2.46 million. In another case, previously treated on the usual lines without improvement, 150 c.cm. of blood were transfused. A preliminary differential blood count showed 200 leucocytes, 4 normoblasts, 9 megaloblasts, and 4 "stippled" cells. An hour after transfusion the numbers were 89 leucocytes, 4 normoblasts, 18 "stippled" cells. Since obtaining these results the author has made a practice of transfusing 150 c.cm. as routine treatment, although in some cases, after transfusion of 80 or 100 c.cm., there was a marked improvement in appetite and general condition. He recommends transfusion in all cases of severe carbon monoxide poisoning, and in severe secondary anæmias the results of transfusion of blood have been so much more satisfactory than that of normal NaCl solution that they outweigh the possible danger of thrombosis after blood transfusion, which he considers is less likely to occur after the immediate improvement in the nutrition of the arterial wall following transfusion.—*The British Medical Journal.*

Miscellaneous

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The Canadian Practitioner

Vol. XLVII TORONTO, DECEMBER 1, 1922. No. 12

Original Communications

The Alexandrian Era

By Adam H. Wright, B.A., M.D., *Emeritus Professor of Obstetrics, University of Toronto.*

The annals of history contain nothing more marvellous than the records of the brilliant career of Alexander, the boy king, who, at the age of twenty, ascended the throne of Macedonia in the year B.C., 336. Young Alexander was educated under the supervision of the great philosopher, Aristotle. It is doubtful if any one man either in ancient or modern times contributed more to the progress of medicine than Aristotle. He belonged to the Asclepiad family, and, in accordance with the customs of the times in such families, received a liberal education. His father was an exceptionally scientific physician, and Aristotle probably inherited from him the tastes and inclinations in the direction of natural history. When a young man he went to Athens where he remained for twenty years, during which time he was intimately associated with Plato.

King Philip was very ambitious, had received in his youth a good military and literary training, and he was anxious that his son, Alexander, should receive a still better training. He consequently sent to Athens, for the great doctor and philosopher; and Aristotle, then in his forty-second year, became the teacher of Alexander when the latter was fourteen years old. The young prince, under the tuition of this master, became a devoted admirer of Greek art and literature. He also became fond of the study of natural history, and supplied his teacher with sufficient means to collect

ample materials for the study of comparative anatomy. While Alexander was learning science under such favorable circumstances, he was also placed under strict military discipline; and at the age of eighteen or nineteen he became one of the best generals in his father's army.

Philip desired to bring the whole world under the sway of Macedonia; but suddenly a great change came when, B.C. 336, this warlike king was cruelly assassinated at the early age of forty-seven. This was supposed to be Greece's opportunity to assert her independence. The son, Alexander, afterwards known as Alexander the Great, was only twenty years of age. Demosthenes, the distinguished Athenian orator and statesman, endeavored with his brother patriots to destroy the power of the new king. There were, in addition, enemies near the throne, who intrigued against this audacious boy. What was Macedonia to do under the circumstances? Alexander soon decided for his kingdom, and by his wonderful genius and energy, and with the assistance of Philip's perfectly disciplined army, rapidly destroyed all enemies at home, and went forth with irresistible force to conquer various nations in Europe, Asia and Africa.

The chief point of interest in connection with Alexander's wonderful conquests is the fact that his great aim was to form a new and great nation comprising as far as possible all the countries of the then known world, to be kept together by the bond of Greek civilization. Kingsley says: "In the year B.C. 331 one of the greatest intellects whose influence the world has ever felt, saw, with his eagle glance the unrivalled advantages of the spot which is now Alexandria; and conceived the project of making it the point of union of two, or rather of three worlds. In a new city named after himself, Europe, Asia, and Africa were to meet, and to hold communion." Greece had lost her position as the greatest of cultured countries. Alexandria, at the mouth of the Nile, was to be the one great city of the world, the city of commerce and industry, the city of civilization, the city of intellectual and literary life. Egypt had a history of her own with a sort of culture and a degree of civilization which had existed for centuries.

Alexander the Great, who as a soldier had always defied the greatest of dangers, died in a rather inglorious way from what was called "Marsh fever," at Babylon, B.C., 323, at the age of thirty-three. The Great Empire, which he had built up so rapidly, then fell to pieces almost in a day. Art

and Science, however, which, through the good services of his master, Aristotle, he had encouraged and fostered, lived after him—in fact they more than lived, they advanced with amazing rapidity. Alexander's desires or dreams in a political sense were not realized. Egypt became only one of the kingdoms or provinces of the great shattered empire; but, at the same time, she became and remained, for something like four hundred years, the centre of intelligence and culture from whence spread the rays of civilization to all parts of the world.

After Alexander's death the highly polished and cultured Ptolomies became the rulers of Egypt. The family was originally Greek, and had decided tastes in the direction of art and science. The various members of the family encouraged distinguished artists and scientists from Greece to come to Egypt, and gave them substantial assistance in every way. It became a sort of hobby with these princes to extend their patronage to men of science. It was the fashion of the day, and a very good sort of fashion it was. They erected great buildings, established huge libraries, immense museums, large botanical and zoological gardens, and medical schools with which were associated a fame and renown that far surpassed those of any other countries in the world. They gave every encouragement to the study of anatomy, and furnished abundance of material for all students who desired to dissect, and did this in spite of the strong prejudice of the Greeks and Egyptians against such work. They even went farther in this direction than the most enthusiastic anatomists of the present day would think of doing. They allowed the dissectors to work on living men, criminals who were given to the anatomists for this purpose, (as we are told by Puschmann), "so that they (the anatomists) could study the particular organs during life in regard to position, color, form, size, disposition, hardness, softness, smoothness and superficial extent, their projections and their curvatures;" justifying these procedures by saying, "it must be permitted to sacrifice the lives of a few criminals if by so doing a permanent advantage accrues to the lives and health of many worthy men." Another of their reasons for countenancing human vivisection (Baas says) was "in order to search out the seat of the soul and the origin of disease."

The works of the anatomists of those days are almost entirely lost; but we learn from Celsus, Galen, and others,

that they had a somewhat intimate knowledge of certain organs. Herophilus described the pulmonary artery which, he called the venous artery. He also had some knowledge of the chyle vessels of the alimentary canal. He gave the name of "twelve inch gutduodenum" to that portion of the alimentary canal next to the stomach. He studied the encephalon and gave us such terms as "torcula herophili," "calamus scriptorius." His distinguished contemporary and rival, Erasistratus, also studied carefully the brain, and described its convolutions, ventricular cavities, the origin of nerves, and their distribution, and mentions two kinds of nerves—those of sensation and those of motion.

The Ontario Medical Association and Hospital Standardization

E. R. Secord, M.D., Brantford, Ontario.
President Ontario Medical Association.

The Ontario Medical Association includes within its membership about two-thirds of the active medical practitioners of the province. It may, therefore, well be said to be representative. Its main ideal is the best possible medical service to the public: firstly in the prevention of disease, secondly in the cure of illness, and thirdly in the alleviation of suffering. The medical profession is the only profession whose constant endeavour, paradoxical though it may seem, is, by preventing disease, to actually lessen the demand for curative services.

The disappearance of chimney-sweep's cancer, the practical elimination of hospital gangrene, the enormous reduction in both severity and occurrence of smallpox, the marked diminution in typhoid fever, and the clearing up of yellow fever in the Canal Zone, rendering possible the construction of the Panama Canal, are all triumphs of preventive medicine.

Referring more particularly to the treatment of illness, a marked change has taken place within the last twenty or thirty years. Whereas in the last part of the nineteenth century the percentage of the sick public who went to a hospital for treatment was relatively small, to-day the hospital is the chief meeting place of the patient and the physician. It is, therefore, obvious that anything that makes for better hospitals

assists the physician in his effort on behalf of the patient, and, consequently, rebounds to the direct advantage of the latter.

It must ever be remembered that the sick person, the patient, is the unit around which the hospital is built, equipped and functions. Too often in the past, perhaps, has the idea gone abroad that the hospital was a sort of glorified boarding-house for the sick, established principally for the doctor's convenience. Nothing could be further from the truth, and this basic fact must always be emphasized, that in the trinity of hospital life—the patient, the nurse, and the doctor—the patient is and always must be the paramount consideration.

It is evident then, that any hospital must fulfil certain requirements before it can be considered as a safe place for the sick, and this brings us to the problem of hospital standardization. A standard hospital is merely one which can demonstrate that it offers to the sick those minimum requirements which collectively guarantee efficiency of service.

The American College of Surgeons has done and is doing a great service to the sick of this continent, in establishing a basis on which these minimum requirements can be founded—a competent and ethical medical staff, well organized and holding regular meetings, proper laboratory facilities, complete case records.

It would seem that this is a relatively simple programme, and one that indeed constitutes the minimum requirements for a competent hospital service; and yet, I regret to say that not half the hospitals in this Ontario of ours have come up to the standard. One may well ask what are the reasons. Dr. McEachren will probably refer more fully to this, but possibly mere inertia on the part of boards of governors and a passive opposition to any progress on the part of a very small minority of the profession may in no small measure be responsible.

In this connection it may not be amiss to refer to a certain unfair criticism of the word American which has been broadcasted by certain opponents of hospital standardization. They have asked in no uncertain terms why an American organization should come over to Canada and try to tell us what our hospitals should do.

Probably the best answer to that is that the sick man making a fight for his life recognizes no geographical boundaries, that the word American is continental rather than political, and that in the decade, more or less, of its existence, the American College of Surgeons has had, and has now among

its regents, the outstanding figures in Canadian surgery, has had a Canadian president—no less a revered person than my distinguished friend, Dr. Geo. Armstrong, of Montreal—has had one of its annual meetings in a Canadian city, and last but by no means least, that all the inspection of Canadian hospitals has been done by Canadians, particularly by Dr. Ponton, of Vancouver, and by our distinguished friend, Dr. Malcolm McEachren, born in Ontario, trained in the medical sciences in Quebec, for some time Superintendent of the Vancouver General Hospital, the greatest hospital centre in Canada, Associate Director of the American College of Surgeons, and, mark you, now the President of the American Hospital Association.

If anything further can be said with reference to this criticism, I would only add that the Ontario Medical Association met in Niagara Falls in 1921, and then and there unanimously adopted a report completely endorsing the platform for hospital standardization as laid down, and again in May of this year, in the City of Toronto, without a dissenting voice, went on record as advocating that the Association should lend the weight of its influence towards having every hospital in the province brought up to these standards.

Therefore, I can assure you that the organized medical profession of Ontario is solid for any and every form of hospital improvement, because, thereby and therefore, it may render better service to the citizens of the province, which, after all, is our first consideration.

Hospital Records

By Roy C. Kingswood, B.A., M.D., and George Ramsay, M.D., Victoria Hospital, London.

A hospital may be described as a public utility filling a position of need. As such, its function is to give service, and that service to be effective must be efficient. What place, then, have records in that service? The patient has the priority of claim and has a right to expect that such thoroughness as is included in an effective record shall be his portion. The physician fulfils a duty to himself in giving to the patient such study of the diseased condition as is outlined in a record. *Third,* the public, whose institution the

hospital is, has a right to feel secure, that the procedure therein is thorough, painstaking and logical to the end that conservation of life may add to the community assets. *Fourth,* the institution needs to know that it is discharging its full duty to the community through its staff and officers, to the end that efficient service may become its tradition in perpetuity.

These are axioms, and it is with their application that we are concerned. Records are financial, social and medical. With these last I propose to deal. While mindful always of the requirements of the standards set by the A.C.S., I want to warn against records kept merely as so much manuscript, with no attempt at application. Likewise would I add my protest at any attempt to make the hospital fit the record, and not the record to blend with the character of the hospital. In arriving at what might serve Victoria Hospital, London, we made an analytical examination of at least thirty ests of hospital forms, and chose what seemed most applicable to a municipal hospital of 400 beds for public and private patients, comprising the whole series of types of service, selecting what seemed to meet our particular needs, and discarding much, and here and there contributing some little thing that appeared to warrant a trial. There was also an effort made to link in harmonious union with hospital records those documents required in dispensary and follow-up social service. Six months later we had the satisfaction of seeing almost an identical system described in the "Modern Hospital" for a hospital that compared with ours in size and service.

The requirements which guided the adoption of any form was that it should be simple in legend and complete in the outline which shall guide the investigator, leaving always scope for individuality. I protest against such efforts toward standardization as would stamp out individuality. Again, in the interests of economy, of time and money, we endeavored to secure such procedure as would make every single effort at record, from admittance slip to discharge certificate, a constant working tool, and a permanent document. It is easy to carry system to such a degree that it enslaves. Reduplication may weary and discourage even the most energetic.

The end purpose of a record is a diagnosis and this demands a complete, prolonged and detailed study of the patient from physical, mental and psychological viewpoints. In

this evolution of analysis the record should be always a guide to investigation, an adding machine of daily or hourly observations to the ultimate totalization, into a diagnosis of the patient, not alone of his disease. Nor does it stop there. Treatment follows on the conception of the cause, course and expected outcome of the condition and is varied to meet its changing phases. If then, it gives proofs of intelligent endeavour, it requires a record of what has been tried and found wanting.

I wish to quote Dr. Emerson's definition of a record. "It is not our imagination or our memory of past events but a painstaking entry on imperishable human documents of what is at the same time the glory and the humility of medicine. the truth as we see it, when we see it, the facts as our faltering and unskilled senses take note of it, whether in the immediate presence of suffering humanity, or at the operating or autopsy table, while still the echo of the laboratory test is knocking at our conscience. The present is ours to record. To-morrow belongs to the past."

I wish to acknowledge the pioneer work of the late Dr. J. L. Stapleton in laying the foundations of our Record System in Victoria Hospital, London, which has been carried on by Dr. J. R. N. Childs; also the sympathetic support of trustees, staff, internes and record clerk in making the effort possible.

Dr. Ramsay has given you the machinery necessary for a carefully designed hospital record system. We shall now attempt to show how easily this machinery works at Victoria Hospital, London, Canada, after it has been carefully oiled and lubricated.

Even the minor manufacturing concerns have men in their employ, to whom thew pay substantial salaries, who do nothing else but check and record the materials, cost, results, etc., of their manufactured product.

If business men deem it necessary to exercise so much care in the record of the process of manufacture of their article, how much more careful should medical men be, who are attempting to repair the manufactured product, namely, the human body, that a definite record may be kept of the attempt at repair while in the repair shop, namely, the hospital; also how essential to the patient that a repair record should be kept for any necessary future reference.

We thought our method would be best explained if we were to take any actual case and follow it through the hospital from the time of admission until discharge.

Slide No. 1. *History Form.*

Mr. John Doe enters the hospital on July 1. The necessary notification has been given to the attending physician and interne. The interne visits the patient, not with a huge pad of record papers in one hand and a fountain pen in the other, but purely to meet the patient and become acquainted with him, to make sure that his wants are being supplied and to find out slightly the nature of his case. This gives the interne his approach to the patient, and then some time within a few hours he is able to obtain a history which is a real record of the patient's condition.

The history embodies his:

(1) Chief Complaint.
(2) Mode of onset.
(3) Brief past and family history.

Slide No. 2. *Physical Examination.*

He then proceeds to his physical examination which we require to be complete and if there are any findings in his examination which are not absolutely clear we require that he consult one of the senior men.

Probably the two most important notations on this form are:

(1) Working diagnosis (after physical examination). We require that the interne write down his provisional diagnosis after he has summed up the case and that he stick to this diagnosis until someone who knows more about the case proves that he is wrong. In this way he gets his training and is encouraged to think.

(2) Read by Dr. Williams (notation on bottom of chart). This proves to the interne that the visiting physician (Dr. Williams) has been sufficiently interested in his work to read what he has written.

Slide No. 3. *Progress notes.*

This is a record of the patient's general condition, post-operative condition and condition of the wound, and includes the opinion of any doctor who may have been called in consultation. We require that these be written at least every three days.

Slide No. 4. *Operative record.*

This is a concise detailed record of the procedure and findings at the time of operation. Dictation is carefully given

by the surgeon or senior assisting interne immediately after the operation.

Slide No. 5. *X-ray report.*

A report from the department of rœntgenology would also be found on the chart. A miniature reprint of the plate accompanies each report as shown in this case of renal calculus.

Slide No. 6. *Laboratory Findings.*

The laboratory findings are recorded as seen and include urinalysis, blood and serological report. The interne is responsible for most of the laboratory technique.

Slide No. 7. *Temperature Chart.*

The patient's temperature, pulse and respiration are kept as above, also a record of the number of stools, uninations, etc.

Slide No. 8. *Nurse's record.*

A record made by the nurse, of the patient's general condition, medication, treatment, doctor's visits, etc. Too much cannot be said for the nurse who carefully records the condition of the patient, as she sees the patients more than the doctor.

Slide No. 9. *Dental Record.*

To make our record complete we have a post-operative record of dental examination, and any extraction, prophylaxis, etc., done at the Wednesday morning dental clinics.

Slide No. 10. *Chart Folder.*

On the discharge of the patient, the interne is responsible for checking the chart to make sure that all records are complete. It is then placed in the above envelope properly filled in and the discharge diagnosis completed and presented at the record office for the approval and signature of the director of records.

Our record for charts complete and approved by the director of records for the month of September was:

Staff Wards	100 per cent.
Semi-private Wards	100 per cent.
Private Pavilions	100 per cent.

Just a word as to how we obtain these records.

Slide No. 11. *Internes on wards taking histories.*

The interne has tried to win the confidence of the patient by his gentlemanly and professional approach. At the present time we have not a dictaphone in use for taking histories, but this is something for the near future.

Selected Articles

Esophageal Obstructions

By Dr. P. P. Vinson, Rochester, Minnesota.

Lesions affecting the esophagus are often overlooked. They are, however, not as rare as generally supposed. During a year at the Mayo Clinic we have seen an average of 225 esophageal strictures; almost one-half of these are due to cancer. Cardiospasm is next in frequency, then benign strictures caused by swallowing lye or acid, and strictures due to the vomiting of pregnancy and to trauma from a foreign body. Some of the strictures are secondary to mediastinitis. Pharyngo-esophageal diverticula are not uncommon. Next in order are the functional dysphagias and those due to hysterical block. A few strictures are secondary to the healing of ulcerations in the esophagus occurring during the course of typhoid fever.

The recognition of esophageal strictures depends chiefly on the history of difficulty in swallowing.

The history of cancer esophagus is short, beginning with difficulty in swallowing solids, and then semi-solids and liquids; finally liquids are restricted. Occasionally, though rarely, patients have about as much difficulty swallowing liquids and semi-solids as solids even in the beginning.

Patients with cardiospasm usually have symptoms extending over a period of about seven and one-half years. There is usually a history of dysphagia with all types of food, including water.

In benign stricture there is usually a history of trauma by the ingestion of some caustic, taken with suicidal intent or accidentally. The history is typical; four to six weeks following ingestion of the acid or lye the patient has constantly increasing difficulty in swallowing.

Hysterical dysphagia is of long duration; the patients may complain of weakness and anæmia.

[1]Presented before the American Congress on Internal Medicine, sixth annual clinical session, Rochester, Minnesota, April, 1922.

Strictures following inflammatory conditions in the mediastinum are often traceable to an appendiceal abscess, pneumonia, or other suppurative processes.

Patients with pharyngo-esophageal diverticula often regurgitate mucus at night. At the end of the meal the food regurgitated is that taken at the beginning of a meal.

Lesions due to syphilis and tuberculosis are rare. Benign growths in the esophagus are also rare, and seldom produce dysphagia.

Diagnosis

Passing a sound is a very valuable aid in making a diagnosis. It must be passed gently and without pressure. No sound should be passed into the esophagus without a thread as a guide.

The next aid to diagnosis is the roentgen-ray examination. There are lesions, however, which the roentgen-ray will not demonstrate, and it will not make a differential diagnosis.

The esophagoscope is of little value in treatment, and is really a handicap in many cases. It is indispensable in removing foreign bodies and in obtaining a section of tissue for diagnostic purposes.

Physical examination is of very little value, except in carcinoma with metastasis to the cervical glands.

Treatment

Esophageal lesions produced by strictures are treated differently from those produced by spasms. The cardiospasms are usually relieved by the use of the hydrostatic dilator. Seventy-five per cent. of patients can be cured by one stretching and the majority of the remaining twenty-five per cent. can be cured by repeated stretching. Benign strictures can be cured by dilating with sounds. Malignant strictures are relieved by dilating with sounds, but so far as we know they are incurable.

I wish to make a plea for the early diagnosis of malignant strictures of the esophagus. Surgery alone offers relief. Radium is useless, it is usually not even palliative. Palliative dilatation gives more relief than any other form of treatment and is more desirable than gastrotomy, because of the discomfort of that operation. If a patient complains of difficulty in swallowing, the esophagus should be thoroughly investigated, for if these patients are to receive any benefit from surgery, operation must be performed early.—*Annals of Clinical Medicine*, Sept., 1922.

The Value of Dental Examination in General Medicine

By Boyd S. Gardner,
Section on Dental Surgery, Mayo Clinic, Rochester, Minnesota.

If the clinician wishes to know whether or not the teeth with their investing tissues are to be considered possible factors in the conditions of their patients, complete roentgenograms should be made of all mouths, whether or not edentulous. A casual glance into the mouth is worthless in drawing conclusions with regard to the teeth that should be examined. Roentgenograms of the entire mouth make it possible to compare an abnormal condition around a tooth with the normal. The dental diagnosis is made only when the patient is present, as it is necessary to compare the clinical evidence with the roentgen-ray findings, as well as to test certain teeth for vitality. Chronic infection in a tooth is seldom manifested by pain.

In the section on dental surgery in the Mayo Clinic teeth are divided into two groups: those to be removed for local reason, and those to be removed when the systemic condition warrants. Therefore, extraction in the first group is a matter for the dentist to decide, if the patient is able to withstand the operation; extraction in the second group is for the physician to decide. The dental history sheet should be put in such a form that it will be entirely understood by the physician, as co-operation between the dentist and physician is necessary. The dentist should be discouraged in prognosticating the results of dental surgery, as this should be left entirely in the hands of the physician who refers the patient.

The roentgenographic findings in 290 partially edentulous or edentulous mouths demonstrate that extraction by pulling is not adequate or justifiable. Eusterman found that roots were left in more than 30 per cent. of jaws which were supporting either full or partial dentures. Extraction of teeth by the method known as alveolotomy makes such a condition practically impossible. Not only are the teeth extracted in their entirety with a minimum of trauma, but the mouth is left in such a condition that the patient will receive the maximal result from his artificial work in the minimal length of time.—*Annals of Clinical Medicine.*

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Editorial

Blood-tests and Paternity

It seems to be the belief of a certain proportion of the medical profession that any diagnosis whatever can be made in the laboratory. By some it is thought that clinical methods are overshadowed completely, that is, as far as diagnosing a disease is concerned, by those of bacteriology. The idea is growing that "blood-tests" will prove anything and everything in a man's medical or biological history but, as an article in *Health*, Oct. 1922, warns us, before we accept the latest claim, let us make sure of our ground. Not long ago, some progressive, not to say sensational, journals, taking up a remark heard in some divorce proceedings in Great Britain, made it their business to lay bare wonderful discoveries with regard to parentage as shown by laboratory tests upon the blood. Of course, as is usual with modern journalistic stories of the sensational type, these tales consisted of half-truths only and, as the writer in *Health* says, "one fears that a few more moons must wane ere by pricking the child's finger we can tell who his father is." There is no space here to enter into an elaborate description of the reason why the writers in the

journals failed to grasp the whole truth. Probably it was not the part of up-to-date journalism to try to do so. But so much may be said, that the evidence of parentage to be obtained from blood tests may be conclusive for certain cases, but in just so many instances the grouping might so fall that laboratory tests were of no value whatever. As a matter of fact the only value that blood-testing for paternity possesses is as negative evidence. It is attempted to show, not who the father was, but that a particular individual could not be the father. This can be done in a goodly number of cases. But to imagine that by laboratory methods the paternity question can be settled without cavil is merely to imagine a vain thing. After all, up to the present, the laboratory is still the handmaid of clinical medicine, or at the most its equal. Sir James Mackenzie has been insistent on this point. It is a pity and almost a crime that lay journals, taking advantage of the ignorance of their readers in matters necessarily beyond their ken, should blazon forth half-truths. Such a course is at all times mischievous and sometimes dangerous.

Chronic Intestinal Stasis

A slight typographical error in our last issue, substituting "t" for "l", made such a vast difference in the article that some explanation is considered fitting. The main point in the article, which, by the way, was written by our English correspondent, was a desire to make reference to the importance of the condition now known as intestinal stasis, about which we have learned so much from Sir Arbuthnot Lane. He thinks that for this condition a suitable bactericide is the proper remedy, and recommends for the purpose, dimol. The object is to destroy bacteria in the fluid contents of the intestinal tract, and the dosage recommended is two to four tablets, or pulverets, after each meal. This remedy is endorsed by both the *Lancet* and the *Practitioner*, although we presume that the object is intestinal disinfection, and for that purpose the physician may choose his own medicine.

This opens up a very large question which appears to receive more consideration in the older countries than it does on this continent. For instance, we find one British writer who speaks as follows: "There are hundreds of people, who have a daily evacuation, walking septic tanks"—because their bowels are never thoroughly emptied—and he adds "unless you empty

and disinfect, a great variety of human ailments are likely to be produced." Sir Arbuthnot considers that all the statements made by Colonel McCarrison regarding the physical condition of certain uncivilized races strengthen his (Sir Arbuthnot's) "argument as to the preponderating part which stasis plays in the development of cancer."

Do we sufficiently realize the importance of the statements made by Lane and many other British surgeons that intestinal stasis is the direct cause of a large proportion of cancer of the stomach and bowels. If these views are correct, and many of us think they are, why not devote a good deal of attention to the prevention of intestinal stasis, or, in other words, the prevention of internal cancer.

Erratum

Cancer of the Uterus, by Dr. F. W. Marlow.

Correction of Error—On page 500, in paragraph five, November, 1922, issue, "Early diagnosis generally precludes operability," should read, "Easy diagnosis generally precludes operability."

News Items

Hospital for Sick Children, London

A War Memorial Hospital for Sick Children, located at Ottoway Avenue and Colborne Street, London, Ontario, was formally opened, October 28th, and handed over to the city to be operated in connection with Victoria Hospital. Dr. Wilson, Mayor of London, received a golden key which had been presented to the ladies who collected the funds for the building of the hospital, and handed it to Colonel Gartshore, Chairman of Victoria Hospital Trust. It may be mentioned incidentally that Colonel Gartshore donated $10,000.00 toward the endowment of the new hospital.

The visiting members who attended the meeting, October 16th and 17th, were greatly interested in this new children's hospital and also in Victoria Hospital, both of which were considered complete in all respects. They also had nothing

but praise for the beautiful and commodious new building for the medical faculty which some of the visitors from the United States called the best medical college of its size in North America.

McCrae Memorial

Over two years ago a proposal was made by the Canadian Club of Guelph that Canada should fittingly recognize the personality and service of the late Lieutenant-Colonel John McCrae at the place where he was buried in France. Other Canadian clubs responded and it has been decided to build something substantial in the shape of a stone seat with accessories which will be placed at the entrance to Wimereux Cemetery, in which his remains were buried. At one side there is to be a house of records, on the other a shelter—both will be handsome and elaborate structures—and between these will be placed the large stone seat. On this seat will be carved the verses of John McCrae's poem beginning, "We are the Dead," beneath this the name of the author, and then a statement that "Colonel McCrae is buried in this cemetery."

Such a structure would cost about $30,000.00. This amount is now in the hands of the local committee at Guelph. The decision as to the plan of the memorial has been accepted by the McCrae family, their friends and the various Canadian clubs.

University of Toronto Staff Appointments

The following appointments were made by the Board of Governors of the University of Toronto:

Department of obstetrics and gynæcology—Assistant professor, Dr. F. A. Cleland; associates, Dr. W. A. Scott, Dr. J. G. Gallie, Dr. N. D. Frawley; Senior demonstrators, Dr. R. W. Wesley, Dr. W. W. Lailey, Dr. W. G. Cosbie; junior demonstrators, Dr. H. B. Van Wyck, Dr. D. M. Low.

Department of oto-laryngology—Associates, G. M. Biggs, E. Boyd. Senior demonstrators, J. C. Calhoun, A. A. Campbell; junior demonstrators, Jane S. Manson, D. E. Stanton Wishart.

Department of pharmacology—Chemical technician, Miss S. Gairns, B.A.; class assistant, Dr. F. W. W. Hipwell; assistants, J. A. Macdonald, Miss K. Muldoon.

Department of medicine—Junior demonstrator, Dr. E. A. Broughton; senior demonstrator, Dr. F. G. Banting; assistant anæsthetist, Dr. M. D. McKichan; assistant professors of ophthalmology, Dr. D. N. MacLennan, Dr. W. H. Lowry.

The Dangerous Roentgen Ray

We regret to announce another victim of the X-ray. Dr. J. Bergonie, professor of Medical Electricity and Physics, Faculty of Medicine, Bordeaux, has had his right arm amputated. Several years ago two fingers of his right hand were removed on account of radiodermatitis.

Gifts to Western University

We are informed by the *Western U. Gazette* that U. A. Buchner has presented the library with a volume of "The Aphorisms of Hippocrates and the Sentences of Celsus." This is one of the earliest medical books written. This volume was corrected and brought up-to-date by Sir Conrad Sprengell, London, England.

Dr. Frank Farley, of Trenton, Ont., presented an interesting antique in the shape of a pair of saddle-bags which are old and worn, showing signs of long service and much exposure. The saddle-bags were originally owned by a Dr. Powers, born in Vermont in 1803, of Quaker parentage. When a young man he moved to Canada and took an active part in the "rebellion of 1837." During those troublous times he travelled a great deal on horseback, always having his saddle-bags with him.

Western Graduates' Re-Union

The medical graduates of Western University of 1905 held a pleasant re-union in the Tecumseh House, London, October 16th.

Among those present were Drs. Rowntree, Rochester, Minn.; A. McIntyre, Glencoe; D. L. Ewen, St. Thomas; A.

W. Beattie, Belmont; R. W. Buck, Windsor; H. Shaef, P. C. Banghart, W. M. Shoebottom, D. J. McKay and L. H. Douglass, London.

Canadian Association of Nurses

At the annual convention of the Canadian National Association of Nurses, held in Edmonton in July, it was decided to establish a national office for the Association with a paid executive secretary in Winnipeg.

Canadian Nurses' Memorial

The nurses of Canada reported good progress in collecting funds for the memorial to the Canadian nurses who lost their lives in the Great War. It has recently been decided that this memorial will be erected in Ottawa at a cost of about $65,000.

A high compliment was paid to the Victoria General Hospital, London, Ont., and its staff, when Drs. G. A. Ramsay and Roy L. Kingswood were invited by the American College of Surgeons to attend its annual meeting held recently at Boston and to demonstrate their "case record system."

Personals

Dr. Michael Steele, formerly M.P. for South Perth, has left Tavistock and is now residing in Stratford. He has purchased the Ancrum Brae Hospital and the grounds surrounding it. While he will take charge of his own patients in the hospital, it will also be at the service of all physicians and surgeons who desire to send patients to the institution.

Dr. Earl Watson, W.U., '19, went to England soon after graduating and has been acting for the last two years as Assistant Professor in the University of Sheffield. He was married, August 1st, to Miss Zoe Eileen Addy, of Ranmoor, England.

Dr. J. Edgar Bates has been awarded the Ellen Mickle Fellowship in the University of Toronto, and will continue his work in the Department of Pathology for some time.

Sir Edward Scott Worthington, who graduated in Medicine from Toronto University, 1897, and is now practising in England, was appointed an Honorary Physician to the King in January last.

Dr. Harold Orr, son of Mr. William Orr, Euclid Avenue, Toronto, after practising for some years at Medicine Hat, went to England. It was reported in Toronto, October 15th, that he had been appointed Chemical Assistant to Dr. Sequeira, London, England.

Dr. Frederick G. Banting has been awarded the Reeve Prize by the University of Toronto for his research work on the treatment of diabetes by insulin.

Dr. K. H. Johnston, W.U., '21, is at present engaged in post-graduate studies in England and will go to the continent before returning to Canada.

Dr. Gordon Dobbin has removed from Battle Creek, Sask., to Toronto, where he is now a member of the Lockwood Clinic, Bloor Street East.

Dr. McTavish of Appin, Perth County, has removed to Tavistock, and is now living in the house formerly occupied by Dr. Steele.

Dr. W. N. Morrison, W.U., '19, is acting as assistant to Dr. Heard, Specialist in Diseases of Eye, Ear, Nose and Throat in New York City.

Dr. Dorothy Trapp, Toronto, '22, has been appointed a member of the residence staff of the Toronto General Hospital.

Dr. Violet Amelia Shaw, Toronto, '22, sailed August 24th for China, where she will act as an Anglican Medical Missionary.

Dr. Albert Reddick Ward, formerly of Dundurn, Sask., has removed to 121 Colbeck Ave., Toronto.

Dr. John T. McCosh has removed from Paris, Ont., to 1978 Dufferin St., Toronto.

Dr. O. C. Hague is now on the staff of the Toronto Free Hospital, Weston.

Dr. W. P. Freeman, W.U., '14, is practising in Springfield, Ontario.

Dr. R. A. Johnston, W.U., '19, has commenced practice in London, Ontario.

Dr. A. G. Bremner, W.U., '19, has commenced practice in Bronte, Ontario.

Dr. M. R. Quinn, W.U., '22, is doing post-graduate work in New York.

Dr. L. C. Hillis has removed from Oil Springs to Kingsville.

Dr. A. E. Stewart has removed from Ancaster to Merlin.

Obituaries

John G. Scott, M.D.

Dr. J. G. Scott, a prominent physician of Ottawa, died suddenly, October 28th, while on a hunting trip in Pontiac County, aged 66. He had been enjoying the best of health and had just shot his second deer before his death. He graduated, M.D., from McGill, in 1880.

Roderick Macneill, M.D.

Dr. R. Macneill, one of the best-known physicians in the Maritime Provinces, who practised in Charlottetown, P.E.I., for a long term of years, died, October 17th, aged 82.

Stephen West, M.D.

Dr. S. West, of Angus, died October 30th, after an illness of two weeks, aged 61. He graduated, M.D., from Victoria in 1886 and had practised over thirty years in Angus.

Wm. Stewart Halstead, B.A., M.D.

Dr. W. D. Halstead, of Baltimore, died at his home in that city, September 7th, aged 70. He graduated B.A., from Yale, in 1874, and M.D., from Columbia, in 1877. From 1881-7 he was Associate Professor at Roosevelt Hospital. In 1889 he was appointed Surgeon-in-Chief and Professor of Surgery of Johns Hopkins Hospital.

George M. Gould, M.A., M.D.

Dr. G. M. Gould, one of the best-known editors and writers on general medical subjects of the United States, died at his home in Atlantic City, August 8th, aged 74. He was best known in Canada as editor of various medical journals, including *Medical News, Philadelphia Medical Journal*, and *American Medicine*, and also as an author of many medical books, including *The Students' Medical Dictionary*.

O. F. Eastman

Dr. O. F. Eastman, a well-known surgeon of Calgary, died, November 5th, of injuries sustained in a motor accident. The car he was driving struck a culvert on the "Edmonton Trail," just north of Calgary, overturned, and killed the doctor almost instantaneously. Two nurses who were passengers were seriously injured.

Herbert E. Shepherd, M.D.

Dr. H. E. Shepherd died at his home, Toronto, October 3rd, aged 78. He graduated, M.D., from Toronto, in 1872.

Edward Blake Oliver, M.D.

Dr. E. B. Oliver, one of the best-known physicians of Canada, died at his home in Fort William, September 25th. He had been M.O.H. since 1912, and was considered one of the best men in the Ontario service. His colleagues showed their respect for him by electing him to the office of president of the Ontario Health Officers' Association in 1920.

Society Proceedings

American College of Surgeons, Ontario Section

The first annual meeting of the Ontario Section of the American College of Surgeons was held in London, Ont., October 16th and 17th. The executive committee that managed the function consisted of Dr. George McNeill, Dean of the Medical Faculty, Western University, Dr. E. R. Secord,

Brantford, President of the Ontario Medical Association, and Dr. F. A. Mowbray, Hamilton.

The first session was opened at 2 p.m., October 16th, with Dr. McNeill, President of the Ontario Branch, in the Chair. Dr. Franklin Martin of Chicago, Director General of the American Association, delivered an address, chiefly on fee-splitting. He said, "Some surgeons are buying and selling patients from the general practitioner on a percentage basis. That, thank God, is a practice not prevalent in your community." The speaker's earnestness and piety were admired, but some wondered why he should occupy so much time on an evil which did not exist in London.

Dr. J. O. Polak, Brooklyn, N.Y., delivered an address in which he spoke of hospital standardization from the surgeon's viewpoint. He also spoke at some length on Pre-Natal Care. He thought it right that they should realize that perhaps there would be a child born who was going to be a leader of men and the public should give that child his birthright of health.

Dr. George Crile, of Cleveland, delivered an address on Experimental Medicine. He said he had no quarrel with death, but he could not conceive of any one living a thousand years. The type of death which he objected to was that which cuts off useful careers. The average period of life has been increased fifteen years as compared with that of the last century.

Some results of experimental medicine were taken from army results, showing an enormous decrease in the prevalence of typhoid fever, tetanus or lockjaw and wound fever during the war.

Dr. E. R. Secord then delivered an address (see page 534).

Drs. Roy Kingswood and George Ramsay also read a joint paper on hospital records (see page 536).

The next meeting of the Ontario branch will be held at Ottawa, the Committee of Management being Dr. A. J. Shillington, President-elect, Ottawa, Dr. Lorne Robertson, Stratford and Dr. George Ramsay, London.

Belleville Medical Society

At a meeting of this society held October 31st, Dr. Bogart, of Kingston, delivered an address on "The Thyroid Gland."

Dr. J. Daly, who has been practising in Belleville for some time, but who is now leaving to take a post-graduate course, was presented with a club-bag by the Belleville physicians.

The following officers were elected for the coming year: Dr. Connor, President; Dr. J. A. Faulkner, Vice-President; Dr. Hill, Secretary.

Ontario Medical Association

The district meeting of the Ontario Medical Association, held in Toronto, November 7th, was largely attended and highly successful in every way. Dr. R. T. Noble, Counsellor for the district, acted as chairman. The morning session, commencing at 10.30, took place at the General Hospital, and consisted of a medical clinic under Dr. Duncan Graham, and a surgical clinic under Dr. Clarence Starr. There was a good attendance—probably much larger than was expected—and much interest was manifested by those present. A luncheon was held at 12.30 at the Academy of Medicine. This was followed by an excellent address from the active and competent president, Dr. E. R. Secord, Brantford.

At the afternoon session, held in Osler Hall, papers were read by Drs. S. E. Webb, on Neurasthenia, F. F. Tisdall, on Certain Diseases of Children, G. W. Ross, on Ultra-violet Radiation, and W. Magner, on Lumbar Puncture.

At the evening session held in the Medical Building of the University, demonstrations of the Tissot Method, of Cardio-vascular Physiology, of Insulin, the new remedy for Diabetes, and of Tetany, were given by Dr. J. J. R. McLeod and his staff.

Book Reviews

Practical Psycho-Analysis

Practical Psycho-Analysis, an Introductory Handbook by H. Somerville, B.Sc., F.C.S., L.R.C.P., M.R.C.S., S.M.O. Whinney House Hospital, Member of the Medico-Psychological Association, Formerly A.M.O. Rainhill County Asylum, Capt. R.A.M.C. Neurologist, The Lord Derby War Hospital and Alexandra Military Hospital. London: Balliere Tindall and Cox, 8 Henrietta Street, Cov-

ent Garden, W. C. 2, 1922. All rights reserved. Canadian Agents, The J. F. Hartz Company, Limited.

I have read with some interest and also with some amazement the book entitled "Practical Psycho-Analysis" by Somerville. The author evidently is clearly impressed with his deductions from his analysis of patients' dreams in pre-war days and since.

It is difficult for one to come to the conclusion, as the author apparently has, that the dreams of all neurotics are sexual in nature. With some analyses the author quickly arrives at this conclusion, at others the course is long but the goal is supposed to be reached when the supposed sexual idea appears on the horizon. The works of Professor Freud and Dr. Ernest Jones are accepted whole-heartedly without a comment except one of eulogy. The so-called symbols are far-fetched, and it would indeed take one with a great imagination to believe the dream of one falling, when analyzed, to be the fœtal position in prenatal life. I have been trained in word association, and, therefore, probably I am not so sympathetic with the author's conclusions. His work is depressing to read, his deductions are not convincing, his results are not given and I might say I cannot accept his ideas.—V. A. McD.

Ophthalmoscopy, Retinoscopy and Refraction. By W. A. Fisher, M.D., F.A.C.S., Chicago, Ill., Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College; Late professor of Clinical Ophthalmology, University of Illinois; Late Surgeon, Illinois Charitable Eye and Ear Infirmary; Late President, Chicago Ophthalmological Society; Member, Illinois State Medical Society, Chicago Medical Society, Chicago Ophthalmological Society, American Medical Association; Fellow, American College of Surgeons; Fellow of the Acadamy of Ophthalmology and Oto-Larygology. With 248 illustrations, including 48 colored plates. Published by W. A. Fisher, M.D., F.A.C.S., 31 North State Street, Chicago, Ill., U.S.A.

This book was written, as the author says, to make the practice of ophthalmoscopy and the fitting of glasses "easy, interesting, and within the reach of all," and he has done his best to live up to his intentions. He emphasizes the important points in the use of the ophthalmoscope, and assists the teaching by a number of excellent illustrations.

As only about two per cent. of men in practice can use an ophthalmoscope, this little work will prove an excellent introduction for those who wish to perfect themselves.

The Practice of Medicine. By A. A. Stevens, M.D., Professor of Applied Therapeutics in the University of Pennsylvania; Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Octavo of 1106 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, $7.50 net.

The progress of Medicine is so rapid in the last quarter of a century that text-books must be constantly revised, and new ones started on their way. We, therefore, welcome this new work on the practice of medicine from the pen of one who is eminently fitted to write a book to serve the need of both students and physicians. Dr. Stevens has given a concise description of disease, with all the recent advances to our knowledge, and has pointed out in nearly every case the trend of modern thought both as regards etiology and treatment.

The arrangement of the book leaves little to be desired, while the index is complete, a most useful feature, indeed. The illustrations, however, are few, and the author has purposely omitted case reports which have come under his own notice, so that the bulk may be kept down, and yet it runs to nearly 1,200 pages. This may have some disadvantages, but is certainly an improvement on many works which are mere picture books with little else to back them up. However, the personal touch of an accurate observer is a very important factor in any text-book.

The paragraphs on treatment are eminently sane and get away from the old style enumeration of a large portion of the pharmacopœa, with nothing definite about each drug. The author has little to say of the vaccine treatment of disease, and one must come to the conclusion that this method is slowly but surely passing out of use. Under the heading of leucoplakia, however, he omits a remedy which is almost specific, namely, radium. Some of the prescriptions, too, are not in line with modern therapeutics, as, for example, syrup sarsæ co., (p. 193.)

On the whole, we are pleased to recommend this work as one of the leaders. One can hardly fail to find what he wants in it, and at the same time there are many references to medical literature, where the research may be continued.

Correspondence

London Letter

(*From Our Own Correspondent*)

London, October 13th, 1922.

Report on Infant Welfare.—Sir George Newman, Chief Medical Officer of the British Board of Education, has issued his annual report recently. It may be said, without exaggeration, that it is a remarkable document in all respects, its literary merits being conspicuous. Sir George Newman is a stylist, as the "Life of Keats" showed. The facts this report reveals are both saddening and heartening. The writer tells us that it is his duty to say that the experience of fifteen years of school medical service has proved beyond all question that the physical and mental impairment of children of school age is wide in distribution and serious in its effects on the national education, health and capacity. Dental cases, defective vision, and mental retardation, excluding all other forms of defect, are each a problem of considerable magnitude. But medical inspection has done much good and conditions are considerably better than a few years ago. The school medical service with its system of careful examination has prevented a good deal of disease from developing, arrested it in an early stage, and it has shown that, while there is much illness which is inevitable, on the other hand, if early and proper steps are taken, a great deal of disease is preventable. This line of reasoning applies to children with special force. School medical service in this country was established in 1907, and as regards the elementary schools has developed into a single comprehensive service. During the nine years of school life, each child is now inspected three times; on admission, at eight years of age, and on leaving school, as well as at other times when necessary. Thus two and a half million children are medically examined every year. For this purpose about 2,000 medical men and 3,000 school nurses are employed. Auxiliary services mainly of a preventive nature have also developed; physical training, for example, which is doing much to remedy physical disabilities. If the doctor thinks fit to recommend food, it is provided under the provisions of the Meals Act of 1906. Extremely dirty children are cleansed

and school baths are provided. Much benefit is derived from the provision of open-air schools where children who suffer from anemia and other disabilities may enjoy the health-giving properties of sunlight and fresh air. The defective, the blind, the deaf, the feeble-minded and the cripples are placed in special schools. Special classes are provided for children who have shown themselves to be dull and backward to a serious degree. The child with tuberculosis is received into a sanatorium school. The cost of this service is very large and amounts now to £2,982,898 of which over a million is for medical inspection, and more than a million for special schools. While economy in national, municipal and domestic expenditure is absolutely essential—the nation is poor to an almost incredible degree—the welfare of the children must be attended to. To stint in this direction would be false economy, as on the health of the rising generation the health of the country and, therefore, its prosperity depends. School medical inspection may be regarded as a form of life insurance, the premiums of which must be kept up at any sacrifice. It is an investment, which will yield continually increasing dividends. At the same time, while it would be unwise to cavil at money spent in this manner, it is clear that the cost varies too much in practice. The average cost per child in public elementary schools is five shillings for boroughs and six shillings for urban districts, but in one borough it is as low as one shilling per child, and in one urban district as high as twenty-one shillings per child. The average cost of administration is thirteen per cent., but in one country area this costs as much as thirty-four per cent. An encouraging part of the report concerns the relation of the school medical service to the national scheme of health reform. "The child has become the starting point of the new preventive medicine."

The section of the report dealing with the functions of the school doctor with regard to the employment of the 600,000 children who leave school every year is replete with wisdom. It is obvious that education must be combined with social understanding of industry. It is suggested that the school medical officer should look out over a wide field of inquiry conducted on medico-psychological lines with a view to fitting the round peg into the round hole. This report is, on the whole, encouraging and stimulating, and suggests that the roles of the medical officers and medical nurses are missionaries of hygiene, who use their energies and intelligence in endeavoring to form a child mentally and physically in such a way that he

or she may develop into citizens and work-people who will worthily uphold the traditions of this great empire.

Prince of Wales' Hospital Appeal.—It has just been announced that the Hospitals of London Combined Appeal is now into the last "£100,000" of the £500,000 which the committee set out to raise. A gratifying response attended the recent appeal by the Prince of Wales in connection with "Our Day and the Prince's Day," held in London. His Royal Highness asked that the result should materially aid in carrying the aggregate "into the last £100,000." When the Prince's message was published on the 15th ultimo, the aggregate of the fund from all sources stood at £314,500.

Medical Society of London.—The presidential address of this old established society, if not quite the oldest medical society, of London was delivered on the evening of October 16th, at the home of the Medical Society of London, 11 Chandos Street W., by Lord Dawson of Penn. It dealt with certain developments in medicine and will be referred to at some length in a later letter. On October 30th, a clinical evening will be held, when an exhibition of cases and radiograms illustrating tumors of the abdomen will be shown. On November 13th a discussion on pernicious anemia will be introduced by Dr. P. N. Panton. On November 27th, a discussion on blood transfusion in civil practice will be introduced by Mr. Geoffrey Keynes. On December 11th, a discussion on the clinical, pathological and radiological aspects of infections of the teeth and gums will be introduced by Sir William Wilcox. The Lettsomian Lectures on Carcinoma of the Rectum will be delivered in February and March, by Mr. William Ernest Miles.

The London Medical Exhibition.—The twelfth London Medical Exhibition was held at the Central Hall, Westminster, from October 2nd to 6th and was a great success. The exhibits were very large and varied. X-ray and electrical apparatus were well represented. The X-rays Ltd., 11 Torrington Place, Gower Street, London, W.C., had one of the largest exhibits. A conspicuous exhibit was the deep therapy apparatus of the Erlangen type. Messrs. Burroughs and Wellcome and Co., Snow Hill Buildings, London, E.C., had a very good display of serum and vaccine-therapy essentials, including diphtheria antitoxin. Messrs. Parke, Davis and Co., 50 Beak Street, Regent Street, London, W., had a remarkably fine display of standard preparations. The Anglo-French Drug Co., 238a Gray's Inn Road, made a special fea

ture of Dimol, an effective intestinal disinfectant free from toxicity, which was discovered, prepared and introduced by Capt. Ainslie Walker. Its composition and favorable clinical results were referred to in the *Lancet,* April 9, 1921, p. 758. Messrs. Allen and Hanbury, Ltd., 37 Lombard Street, E.C., showed a wide range of foods, pharmaceutical preparations, organo-therapeutic products, surgical instruments, and hospital accessories. The Charles H. Phillips Chemical Co., Henrietta Street, Covent Garden, London, W.C., showed their well-known "milk" of phospho-muriate of quinine compound as well as a digestible cocoa compound. Bovril Ltd., of Old Street, London, and Montreal, had an attractive display of Bovril, Invalid Bovril, and Bovril Chocolate. The Pepsodent Company, 40 Holborn Viaduct, London, E.C., showed their dentifrice which contains no soap or chalk, is acid in reaction, although it contains no free acid. The Denver Chemical Manufacturing Co. exhibited Antiphlogistine, which is also well-known on your side of the Atlantic. The Jaegar Co., Ltd., showed samples of their pure wool clothing. Medical books were shown by Messrs. Bailliere, Tindall and Cox, Henrietta Street, Covent Garden, London, W.C., Messrs. William Heinemann (Medical Books) Ltd., 20 Bedford Street, London, W.C., and Messrs. H. R. Lewis & Co., 140 Gower Street, London, W.C.

Abstracts

Sudden Death from Cardiac Failure in Diabetes Mellitus

By R. T. Williamson, *The Practitioner,* October, 1922.

Sudden death from cardiac failure is not generally regarded as one of the terminations to be feared in diabetes mellitus, but it occurs sufficiently frequently to enable one to say that it is not merely an accidental complication. Cardiac complications in diabetes may assume the following forms:

1. Cases of diabetes may be associated with definite valvular disease of the heart from previous rheumatic fever or from arterio-sclerosis.

2. They may be associated with well-marked dilatation or hypertrophy of the heart (often with arterio-sclerotic changes) which produce prominent cardiac symptoms for a long period before the fatal termination.

Promoting a Favorable State of Mind

On the borderland of illness or convalescence, patients frequently tend towards a morbid state of mind.

The usual habits of active life perhaps have been, or must be suspended. Daily existence seems one negation after another. And most irksome of all is the restricted diet.

In such cases, when even the limited use of coffee or tea is contra-indicated, Instant Postum may be a source of much comfort and satisfaction, and therefore a vital factor in promoting a brighter mental outlook.

Instant Postum is one of the most convenient of beverages for sick-room or hospital use, since it is prepared instantly in the cup by the addition of hot water, and may be purchased from the nearest grocer at moderate cost.

Samples of Instant Postum for individual and clinical examination will be sent on request to any physician who will write for them.

Canadian Postum Cereal Company, Ltd.
45 Front St., E. - Toronto
Factory: Windsor, Ontario

3. A form of diabetic coma is occasionally met with, in which the symptoms are associated with cardiac failure, and not with acidosis. This form was described by Frerichs and by Dreschfeld long ago.

The five cases cited by the writer, however, can be ascribed to none of these causes. The heart appeared normal until a few days, or a very short period, before death, when a feeble or irregular pulse, or slight increase of the cardiac dullness, was sometimes detected. This cardiac complication is deserving of more attention than it has hitherto received, especially in cases of diabetes of a few years' duration.

The Progress in Radium and Roentgentherapy in the Treatment of Malignancy. By Russell H. Boggs, *International Journal of Surgery*, September, 1921.

The only progress made during the past twenty years is by radiotherapy and the operation by actual cautery. There are not many more cases cured surgically than there were twenty years ago at a certain stage of the disease, except by the Wertheim operation, and it is considered too radical by most authorities. Cancer of the cervix is still considered a surgical disease, but if the patient is to receive the full benefit from all methods of treatment, it must be accomplished by the co-operation of surgery and radiotherapy practised by qualified radiologists and gynecologists, and not by those who have just purchased radium and have no experience. It has been shown in the different surgical clinics that only about seven or eight per cent. of the cases coming for treatment are free from carcinoma of the cervix at the end of five years. This shows us the number of inoperable cases when first seen, together with the recurrences which makes it imperative that at least 90% of cases of cervical cancer should have the benefit of radium.

Every Little Movement

Minister—"Would you care to join us in the new missionary movement?"

Miss Ala Mode—"I'm crazy to try it. Is it anything like the fox-trot?"—*Chaparral.*

DR. JUNIOR: "Before we go in, Doctor—you often speak of aborting pneumonia."

DR. SENIOR: "That is something which seems to you impossible——"

DR. JUNIOR: "Well, pneumonia—once it is clearly diagnosed—being a bacterial disease——"

DR. SENIOR: "Exactly. But, without the other inflammatory concomitants—impeded circulation with stasis—dead and dying (that is starved) blood cells—red and white; congestion of parts, favoring the pneumococcus with ample sustenance—; all these so-called mechanical factors, can be quickly, safely, antiseptically relieved by the prompt application of Antiphlogistine.

DR. JUNIOR: "It looks like plain, common sense, Doctor——"

DR. SENIOR: "Which all true science is. It is 'plain,' that is logical. It is 'common,' that is in the meaning that it belongs to everybody. The only trouble is that a few of us wish to keep ourselves excluded from the common lot."

DR. JUNIOR: "After all, though—my idea of a physician is the man who seeks first the relief and comfort of his patient, and who, having done his best to effect that, employs his leisure to go deeply into the mooted questions of scientific discussion.

DR. SENIOR: "In treating pneumonia do not overlook the important fact that Antiphlogistine assists the patient to exactly what he absolutely requires, Ease,—Rest,—Sleep——"

Selections

Gliosarcoma of Left Temporal Lobe Causing Right Hemiplegia, Dysarthria, and Paraphasia. (*Gaz. Hebd. Sci. Méd. de Bordeaux.*) By Cruchet and Anglade.

The writers reported to the Bordeaux Medical and Surgical Society on June 6, 1919, a case of a gliosarcoma of the left temporal lobe of a woman aged fifty. She had a stroke followed by right hemiplegia and speech disturbances seven weeks before admission to hospital. She had exaggerated tendon-jerks, and Babinski's sign on right side; slowness and difficulty in pronunciation of words, and answered questions distinctly at first, though with effort, trailing her syllables, but quickly showed fatigue. The syllables overlapped, being sometimes interrupted by words badly articulated or unintelligible. She coined meaningless words (jargonaphasia), and there was paraphasia. She appeared to be word-deaf. Word-blindness could not be tested as she could neither read nor write. Memory feeble. Bad fixation of attention. Only slight hypertension of the spinal fluid, and no evidence of a meningeal reaction. Wassermann negative in blood. Diagnosis leaned toward hemorrhage or thrombosis in the left first temporal convolution with involvement of the internal capsule. There were no signs definitely suggesting intracranial tumor. Death in coma three days later. Necropsy: notable flattening of the left temporal convolutions, with hemorrhagic foci and an oily lemon-yellow exudation. Microscopical examination showed the presence of a hemorrhagic gliosarcoma of this region.—*The Journal of Nervous and Mental Disease.*

Strangulated Diaphragmatic Hernia of the Left Colon of Traumatic Origin (Une hernie diaphragmatique étranglée du côlon gauche d'origine traumatique.) *Arch. franco-belges de chir.* By Le Jemtel.

In the case reported laparotomy showed the left colon herniated and strangulated for a length of 25 to 30 cm. through an old gunshot wound of the diaphragm. The loop was reduced with difficulty even after the diaphragmatic orifice had been enlarged. The immediate postoperative re-

The Romance of Radium

3. Comparison of Ores

THE European pitchblende ores with which Madame Curie worked yielded about one gram of Radium to every five or six tons. In the case of our Colorado-Utah ore, (Carnotite) 400 to 500 tons are required to produce a gram of Radium and to secure this amount of milling ore, it is necessary to hand-sort it from several thousand tons of worthless material.

In spite of this apparent handicap the Standard Chemical Co. has led the world in the production of Radium, being the pioneer American and world's largest producer.

Our Service

An immediately available supply of standard radium tubes, needles and plaques, under seal of the United States Bureau of Standards; quality guaranteed by the Standard Chemical Company, the pioneer American and world's largest producer of radium.

Necessary instruments and screens for the safe handling and application of radium.

A comprehensive and scientific course of instruction in the physics and therapeutic use of radium.

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sults were good but abdominal pain recurred the following day and the patient died.

The author states that in diaphragmatic strangulated hernia operated upon late the question of the advisability of resecting the strangulated loop arises as in other strangulated hernia. In the case reported resection might have saved the patient's life but was not done because the color of the loop did not seem to indicate it. Although in this instance it was possible to reduce the hernia and suture the diaphragmatic orifice through a median laparotomy, the author believes an abdominal incision parallel with the costal border is better in most cases.—*Surgery, Gynecology and Obstetrics.*

The Freeing of Pleural Adhesions by the High-Frequency Current in the Course of Pneumothorax Treatment. (Liberation par etincelage des adhérences pleurales au cours du traitement par le pneumothorax.) *Press méd.* By Herve.

In cases of pleural adhesions developing in patients treated by artificial pneumothorax the author formerly attempted the removal of the adhesions by the use of the thermocautery introduced through the lumen of a trocar, but the difficulty of intrapleural manipulations and the danger of hæmorrhage caused him to abandon this method.

Instead of the thermocautery he now uses the high-frequency current. By this method the liberation of pleural adhesions is greatly facilitated and much more certain. The operation can be done either by introducing the electrode through a simple trocar under the control of the radioscopic screen or by the use of a special endoscope devised by the author which is inserted in one of two puncture wounds made in the thoracic wall, the electrode passed through a trocar being inserted in the other.—*Surgery, Gynecology and Obstetrics.*

Radium Treatment of Tumours of the Bladder and Urethra

Marion (*Journ. d'urol.*), who during the last three years has made frequent use of radium in various affections of the urinary tract, draws attention to its hæmostatic action in tumours of the bladder and urethra. He records seven cases—six of vesical and one of urethral growth—in which profuse

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MEAD'S DEXTRI-MALTOSE is an ethical infant diet material offered to physicians who wish to modify cow's milk for the individual requirements of babies.

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hæmorrhage was checked by this means. In addition to its hæmostatic action radium caused a distinct atrophy, and in one instance a destruction of the growth. Apart, however, from any curative action, radium is of great value in inoperable tumours, which may give rise to profuse hæmorrhage. The technique of its application is very simple. In each case a dose of 10 cg. was introduced by a rubber catheter into the bladder and left for twelve hours. After the application the patients sometimes showed a slight reaction, consisting in a frequent and painful desire to micturate, but never had any severe pain, and the bladder was never injured by the application.—*The British Medical Journal.*

Miscellaneous

Antitoxin and Toxin-Antitoxin

The most important feature of products of this class is the accuracy with which they are standardized. Fortunately, both the diphtheria antitoxin and the prophylactic mixture admit of accurate standardization. The U.S. Public Health Service has fixed the toxin standard, and the antitoxin is standardized by being administered to test animals with the toxin in accurately graded amounts. Some of the animals die and some survive; and there is no element of chance in the test, for the animals themselves are standardized—by weight and otherwise.

Evidently the profession has no means of gauging the reliability of a diphtheria antitoxin or of a toxin-antitoxin mixture offered for sale except the reputation of the laboratory producing it. Even previous experience is not a reliable guide, for unless successive lots are uniform it signifies nothing. The label is a printed guaranty of quality, the value of which depends entirely upon the good name of the house whose signature it bears. Manifestly the physician must take the manufacturer's word for it. Hence the advisability of specifying on orders a producer that stands high in the confidence of physicians on general grounds—whose products as a whole bear the hallmark of quality.

Both Antitoxin and Toxin-Antitoxin are referred to in the advertisement of Parke, Davis & Co., appearing elsewhere in this issue.

Twelve Reasons

Why Medical Men should advise the use of

LIFEBUOY HEALTH SOAP

1. Lifebuoy is a pure soap.
2. It gives a fresh feeling to the skin.
3. It can be usedin the daily wash as well a the bath.
4. Lifebuoy makes a most cleansing and healing douche.
5. It will not harm the most delicate skin.
6. It is good for the children as well as adults.
7. Lifebuoy is a most valuable adjunct in skin diseases.
8. It is the best soap for washing garments.
9. Lifebuoy is antiseptic and germicidal.
10. It is constant in its ingredients and each batch is analytically tested.
11. All ingredients are chemically pure.
12. It imparts a pleasant feeling of real cleanliness.

Lifebuoy is sold by all good grocers and stores. Get a cake of Lifebuoy to-day and learn for yourself its cleansing and refreshing properties.

Lever Brothers Limited, Toronto.

The surgeon who has what Rowntree calls a "lust for truth," not some time in the future, but now and here, who makes an earnest effort to go to the bottom of every case, who tries to the best of his ability "to do justly, and to love mercy, and to walk humbly"—such a surgeon has the highest of all ideals. He will not fully attain his ideal, but if in season and out of season, through good report and bad report, he ponders on his ideal and struggles after it, his life will be a satisfaction to himself, an inspiration to his colleagues, and a benediction to his country.—Dr. J. Shelton Horsley (*South. Med. Jour.*).—*International Journal of Surgery.*

Chiropractic Advertising

We are told that the chiropractors know how to do it. The following is one of their advertisements:

"There is an ever-increasing number of M.D.'s all over the United States and Canada who understand, appreciate and practise straight chiropractic to the exclusion of medicine and every other method. As witness the following selected at random:

Then follows a quotation credited to Dr. Charles Mayo: "The drugless healer is one of the best things that has ever come into the life of the present."

The J.A.M.A., in commenting, says: "Of course, Dr. Mayo never made such a statement, nor anything resembling it, but the reiteration of the falsehood was such that he found it necessary to publicly deny the preposterous canard."

Drifting or Rowing

You are either drifting down stream with the tide and the dead ones, or you are pulling for all you are worth against the current of events. You cannot anchor, for life is one continuous voyage. You are either reading, studying, working, or you are fooling away your most valuable asset—time. If you are trying to improve yourself you are going ahead. If your brain is full of nonsense, you can bet your boots you are drifting down the stream.—*The Silent Partner.*

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For Men, Women and Children

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For MATERNITY cases it is indicated for the nausea of pregnancy, for the discomforts of pregnancy, to restore the figure after confinement and for the dragging and pressure symptoms in pelvic disorders.

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Too many Diphtheria Patients Die

Why should there be any diphtheria mortality at all? Antitoxin is to this disease what water is to fire. The answer to the question is, therefore, that the antitoxin is not given soon enough or in sufficient quantity. Fire does not spread more surely or more rapidly among combustible materials than diphtheria in the tissues of the child attacked. The one supreme necessity is to head it off—put it out. A dose of 5,000 units of antitoxin may or may not suffice. This dose should be the minimum; and it is far better to give 10,000 or 20,000 units in one dose than in two.

Nature is helpless in many of these cases; her defensive forces are simply overwhelmed by the poison of the disease. Give the patient a full dose, a liberal dose, of antitoxin, and as many as may be required; arrest the poisoning process; and then nature, relieved, rallies her phagocytic forces and destroys the invading bacilli.

The mortality of diphtheria in this country, according to the Parke, Davis & Co. advertisement elsewhere in this issue, is 10 per cent. One patient out of ten dies. Save the tenth child!

Enough to Make Him Rave

"What is the editor of the health hints department raving about?"

"A rich woman writes that she gives private moving picture shows in her home, and she wants to know if they will injure her poodle's eyes."—*Birmingham Age-Herald.*

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION

Organized in 1901, at the Winnipeg meeting of the Canadian Medical Association. Incorporated by Act of Dominion Parliament, February, 1913.

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